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Learning through Listening: How Collaborative Discourse Contributes to Individual Learning in Small Group Work

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Learning through Listening: How Collaborative Discourse Contributes to Individual Learning in Small Group Work

by

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In memory of my grandmother – a great listener.

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Learning through Listening: How Collaborative Discourse Contributes to Individual Learning in Small Group Work

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Aligned with socio-constructivist views of learning, small groups are being adopted as a viable and valid instructional technique with increasing enthusiasm. Previous research has shown that learning outcomes for students who have participated in small groups is inconsistent at best, and that small groups function differently even when working on identical tasks within the same classroom. Consequently, researchers continue to try and tease apart the ways in which effective small groups function and how small group participation influences individual learning.

In this study, I explored the nature of listening within a small group learning context with the purposes of understanding how listening behaviors in the group were related to individual learning outcomes and gaining further insights into small group functions. This qualitative study was embedded within a college level history course for which the instructor had assigned students to permanent teams diverse in terms of gender, degree major, and class rank (i.e., freshman to senior status). Data collection and analysis focused on a subset of these teams and centered on group discussions that took place

across two class days just past the semester's midpoint. Data sources included: observational field notes, individual interviews, individually-written essays, synchronized audio/video recordings of team discussions, and team activity sheets. Data analysis was progressive, inductive, and micro-analytical in nature, using discourse analysis of the discussions and topic analysis of the essays to derive themes and code ideas.

As indicated by individual interviews as well as an analysis of what individuals said and did during the small group discussion, listening indicators included verbal and nonverbal responses. A systematic analysis of the individually-written essays alongside a coded transcript of the team discussion revealed that topics included in the essay were ideas discussed by the group and were aligned with indicators of listening. Analyses of all data showed that listening contributes to the way the groups functioned, helping to explain the differences in team interactions.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

Although there seems to be consensus among educators and educational researchers that small group work in the classroom facilitates individual learning, research findings also show that such beneficial outcomes are not guaranteed (e.g., Barron, 2003). Therefore, the purpose of this study is to elucidate how participating in a small group influences individuals' learning by examining the process of listening within the context of small group discussions. Because previous research has demonstrated that group dynamics change over time (Sweet & Michaelsen, 2007), this study was designed to study learning in as authentic a setting as possible, embedded within an undergraduate history class that already incorporated small groups as an integral part of classroom instruction.

Theoretical Frameworks

Current theories about how individuals learn recognize the individual's active role in the learning process. Far from the theories that describe learning simply as a recording of transmitted knowledge, contemporary theories describe learning as resulting from the meaning a learner constructs for himself or herself (see Schallert & Martin, 2003 for a review). Moreover, socio-constructivist views of learning not only acknowledge the role of the individual in the construction of personal understanding, but also that interactions with others facilitate individually constructed meaning, and are indeed a necessary component of learning. As Vygotsky (1978) explained:

> Every function in the child's cultural development appears twice: first, between people (interpsychological), and then inside the child (intrapsychological). This

> applies to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relations between human individuals. (p. 57)

In response to such a view of learning, educators at every level have started using small groups to facilitate student learning (Antil, Jenkins, Wayne, & Vadasy, 1998; Johnson, Johnson, & Smith, 2007). Unfortunately, although learning can happen within a group context (Hogan, Nastasi, & Pressley, 1999; Olivera & Straus, 2004; Teasley, 1995), it is not assured simply by providing students with opportunities to work together (Barron, 2003). That is to say, assigning students to small groups does not automatically produce better understandings via the opportunities they provide for individuals to discuss and develop ideas with their group members on the interpsychological plane, nor does it necessarily lead to individual learning on the intrapsychological plane of which Vygotsky spoke.

Hence, teachers have looked for ways to structure student interactions beyond the traditional didactic interactions between teacher and student. In such small group settings, the teacher no longer controls the evolution of discussion through the IRE (initiation – reply – evaluation) pattern of classroom discourse Mehan (1985) identified. Consequently, new communication patterns will emerge as the teacher retreats as the director of the conversation, and those involved more directly, the students, influence the conversation to promote, to varying degrees, understanding and learning.

From a socio-constructivist perspective, learning is "a collective participatory process of active knowledge construction emphasizing context, interaction, and situatedness" (Salomon & Perkins, 1998, p. 2). In such a view, language is central to

learning as it enables individuals to exchange information, convey ideas, or ask questions of one another. Furthermore, language provides individuals with a symbolic way to think about the world around them. That is, language serves as a tool, not only for mediating the co-construction of meaning *between* individuals but also for mediating the thoughts and understandings *of* the individual. As noted by Wertsch (1991), "…Vygotsky viewed the introduction of a psychological tool (e.g., language) into a mental function (e.g., memory) as causing a fundamental transformation of that function; such meditational means do not simply facilitate an existing mental function while leaving it qualitatively unchanged" (p. 91). Thus, language serves as a primary means by which learning occurs (Schallert & Martin, 2003).

Within the classroom, language can appear as written text or oral speech (Fairclough, 1992). In either instance, language is used to convey a certain meaning that the receiver (i.e., reader or listener) will interpret according to his or her own understanding of language. When alternative meanings are constructed, a need for negotiation of meaning arises (Bruner, 1981; Salomon & Perkins, 1998; Wells, 1987). Although one goal of communication might be to come to mutual understanding effectively and efficiently (Grice, 1975), such differences are not necessarily unwelcome occurrences within a learning context. Indeed, it is the difference between individual understandings – the result of differing personal experiences – that often provides an impetus for dialogue to continue. "Listeners can only construct an interpretation of the speaker's meaning on the basis of their own current understanding of the topic, and that depends on the mental model they have constructed on the basis of their own previous

experience" (Wells, 1987, p. 19). Thus, when students sense that another's interpretation differs from their own, a need for negotiation through discourse begins, providing fertile ground for further development and learning.

Statement of the Problem

If social interaction is seen as a necessary component for learning, then studying the context within which social interactions occur is not only appropriate (Erickson, 1996) but also essential for understanding how better to facilitate learning. Of course, studying social interactions – regardless of the context in which they occur – does not reveal what an individual eventually understands and remembers. Through the discourse that occurs between individuals, we are granted access to the negotiation process, but we are still restricted from seeing how these individuals might later be influenced by that interaction. Furthermore, it is important to recognize that such discourse assumes that individuals are listening to one another; that is, each person is trying to process and understand what the other person has said as part of these negotiations.

However, such assumptions cannot be made, and they are particularly tenuous when the discourse moves beyond the dyadic exchange and into a small group context. As Do and Schallert (2004) clearly demonstrated in their study of individuals' experiences in classroom discussions, not only is listening one of several actions employed during group discussion, but individuals who might appear to be participating sometimes cognitively "tune out" the conversation, effectively disengaging themselves from the negotiations that are taking place around them. Without the insights these researchers garnered through retrospective interviews with the individuals themselves,

this tuning out phenomenon may not have been recognized. With such subtle overt distinctions between tuning out and listening, and so many possible contributors to the discourse in a small group context, it is important for researchers to consider carefully how they might distinguish between listening and tuning out during this meaning-making process in order to explain better the different outcomes produced by individuals after such social interactions.

With such complexities inherent to the study of small groups, much of the research thus far has focused on either the outcomes of participating in a small group or the processes that occur within the group (Janssen, Kirschner, Erkens, Kirschner, & Paas, 2010). When outcomes are the central point of interest, researchers have often compared the performance of those working in a group with those working individually (e.g., Cranney, Ahn, McKinnon, Morris, & Watts, 2009; Laughlin & Doherty, 1967; McGlynn, 1972; Olivera & Straus, 2004; Teasely, 1995). At times, characteristics of the group have been manipulated, such as heterogeneous versus homogeneous ability groups (e.g., Leonard, 2001), and individual performance compared across groups. Such research has led to an overall consensus that small groups are a viable instructional strategy for facilitating learning, and yet results across groups continue to be inconsistent (Barron, 2003). Furthermore, it is still uncertain how learning that occurred within the small group context influenced the individual. That is, questions remain about what learning individuals take away from the group.

Other studies that have focused on the processes within groups have provided some insights into the dynamics of interactions that occur among group participants and

the kind of talk that supports the co-construction of meaning (e.g., Almasi, 1995; Hmelo-Silver & Barrows, 2008; Li et al., 2007). Such research has helped explain some of the inconsistencies found when outcomes are the only point of interest. Process-focused research has found evidence that all small group discourse is not created equal, and groups that are able to engage in coherent conversations benefit more in the small group context than those that participate in conversations that lack coherence (e.g., Hogan, Nastasi, & Pressley, 1999). It is noteworthy however, that when researchers have looked at group processes, most of the focus has been on the talk that occurs within such groups, but little has been done regarding the listening that also happens.

Barron (2003) conducted one of the more comprehensive studies on small groups, helping to bridge this gap between process-focused and outcome-focused research by analyzing the group's talk in order to explain differences in individuals' outcomes. For her study, sixth grade students worked in triads to solve a multi-step math problem, commonly known as the "Jasper" or "Journey to Cedar Creek" problem. Scoring each step of the problem on a scale of 0 to 2, Barron derived an overall score for each group. Based on the percent correct, Barron identified each of the twelve groups in her study as being either more successful (50% correct or more) or less successful (less than 50% correct). In order to look at how the group influenced individual outcomes, she had students individually solve the same problem, checking for task mastery, and then a structurally identical problem with different numbers and character names to assess transfer. Once again, Barron scored each step of these problems to arrive at an overall percent correct for each of the individuals in the group. Using her "more" and "less"

successful categorization of the groups, she compared individuals' mean percent correct on the two individually-solved problems across groups and found that individuals who had been in the more successful groups performed better on these mastery and transfer tasks than those who had been in the less successful groups.

In order to understand how these different outcomes had been produced, Barron next considered group process, turning to the discourse that occurred in the groups as the triads initially worked together to solve the problem. Analyzing the groups' discussions in terms of solutions proposed, she found that there was no difference in terms of the number of correct proposals generated in more and less successful groups. However, group members' responsiveness to proposed solutions was quite different in that less successful groups usually responded to such ideas with silence or rejection, whereas more successful groups engaged with the ideas presented. Consequently, less successful groups had less coherent conversations overall than more successful groups, a characteristic that aligns with other research focused on group process (e.g., Hogan, et al., 1999).

Although Barron's study took a significant step towards understanding how group processes might influence individual outcomes, her design and analyses leave room for further questions to be asked. Notably, using a total score for each problem as the data point for comparison does not reveal the ways in which the group interaction might actually have influenced individual performance. That is to say, there is no evidence of which strategies discussed in the group were eventually taken up by the individual and used later on the transfer task. Given that her discourse analyses showed no differences in the number of correct proposals generated in the groups, the question remains as to

whether it is the offering of the strategy to the group, or *hearing* a group member propose a strategy that supports the individual in later problem-solving attempts. Linking strategies from the group's discussion to an individual's solution would have allowed for further insights into what individuals might have gained from the group, and is something that has yet to be demonstrated in the research on small groups.

Another aspect of this study that should be considered is the nature of the group's task. Although solving a multi-step math problem would have prompted students to think through various strategies and co-construct a plan for solving the problem, it is a task that had a single, "right" answer. Consequently, students were ultimately focused on arriving at a solution rather than developing conceptual understanding. With a task that has such a singular, correct outcome, the discussion naturally would have focused on strategies to solve the given problem effectively and efficiently. However, had the task been designed to prompt multiple solutions, then group members may have allowed more time for idea generation and subsequent exploration of those ideas, changing the nature of the group's interactions and later, each individual's outcome.

Finally, although it is clear that this study was done with sixth-grade students attending math classes taught by one teacher, it is less clear whether the problem set students were asked to solve was a naturally occurring part of this teacher's classes or if it was a special task the teacher agreed to have the students do for the purposes of this research study. Furthermore, based on the fact that students "were randomly assigned to three-person, same-gender groups" (Barron, 2003, p. 315), it would seem that students were not necessarily used to working with those who had been assigned to their triad, and

perhaps not used to problem solving in a group context at all. Given the conclusions regarding how the quality of interactions related to learning outcomes, and what previous research has already demonstrated regarding the evolution of groups over time (Sweet & Michaelsen, 2007), it would seem important to study the relationship between group process and individual outcome within the context of well-established groups.

Consequently, there is further need for studying group processes and their relationship to individual outcomes. In order to circumvent some of the limitations that can arise when temporary groups are imposed on students, I selected for this study a class in which students were assigned to a team that remained together for the duration of the course and in which group interactions occurred almost daily. Furthermore, the tasks that were used for my analyses were designed by the instructor for the purpose of helping students think critically about important course concepts rather than by me for the purposes of studying group processes. Drawing from these authentic and embedded tasks, I was able to trace the ideas presented by individuals in their individual essays to the group's discussion that occurred prior to that task without concern for how the novelty of the group experience might have hindered some of the groups' interactions. Such a micro-analytic look at the ideas represented (rather than an overall score) allowed me to explain better the relationship between group processes and individual learning.

To summarize, in contrast to previous research, my study included a focus on aspects of both outcome and process in order to elucidate better how participating in a small group influences individuals' learning while also examining the process of listening within an authentic context for small group discussions. Previous studies on small group

processes have focused on what is said in the group discourse, whereas studies on listening have occurred outside the small group learning context. This study helps bridge this gap by looking at the listening that occurs within the small group context and how what one hears in that context might influence individual understanding. In studying listening processes, it is important to emphasize that I am not suggesting that group talk, the talk on which previous researchers have focused their analyses and explanations, should be ignored. In fact, as this study demonstrates, what was said in the group was an important indicator of what was heard. However, in trying to understand the role listening plays as part of the dynamic interactions between individuals within a small group, I considered the talk in terms of the evidence it provided for what was heard and the insights it could offer in terms of the learning process.

Questions. Specifically, my study sought to address the following questions:

1. What is the nature of listening in small groups focused on learning?
2. What are the indicators of effective listening in a small group learning context?
3. How are indicators of listening associated with learning?
4. What differentiates groups that function well from groups that function less well in terms of listening?

Previous research has shown that successful small groups engage in coherent discussions. Building upon what someone else has said in a coherent manner requires listening to another's intended message. Therefore, in addition to facilitating conversational coherence, what one says can be an indicator of whether or not one was

listening. For example, by paraphrasing or summarizing what has been said, one indicates what one heard, provides the speaker with an opportunity to clarify if necessary, and then is in a position to move the conversation forward by presenting his or her own relevant comment. Thus, as similar research has done, I considered the group's talk for evidence of listening, but also analyzed nonverbal actions in an attempt to distinguish moments of listening more accurately to reveal how such discourse markers relate to the development of a coherent conversation. I also used these listening indicators to help explain the relationship between group interactions and individual understanding.

Defining Listening

As my study is focused on the nature of listening within small groups, it is important to make clear what I believe constitutes listening. In making his case for describing listening as a relational process, Rhodes (1993) recounted that previous attempts to define listening were often limited by the ways in which one might assess it. However, these listening assessments focused on the momentary demonstration of the intrapersonal components of listening, the results of which were thought to provide evidence that auditory information had been cognitively processed and understood. Such an outcome-focused perspective does little to acknowledge the underlying *process* of listening. Even Carver (1973), who proposed replacing the term *listening* with the term *auding* in an explicit attempt to focus on "the process of hearing, listening to, recognizing, and interpreting spoken language" (p. 77), assessed listening through one's ability to store information and accurately recall it. In contrast, Rhodes (1993) argued that

listening also includes an interpersonal aspect, which means it occurs between people and can be assessed through one person's appropriate responses to another person.

In trying to understand a phenomenon that occurs within small groups, recognizing the interpersonal nature of listening is not only appropriate, but also necessary. Therefore, for the purposes of my study, I define listening in the same way that Do and Schallert (2004) did, as "engagement of comprehension of the discussion" (p. 623). That is, listening involves actively thinking about the concepts that are being discussed in an effort to understand the ideas that were presented. Consequently, verbal contributions to the conversation not only reveal the degree to which one has been listening but can also be considered part of the listening *process*, as cognitively using language to craft an appropriate response is an integral part of meaning construction.

Some researchers who study small group processes might argue then, that this study was not truly about *listening* processes, but about the speaking *and* listening that occurred within a small group. However, in trying to understand how students in a group learned together, I contend that my use of what was said was in service to what it revealed about what was attended to, heard, and comprehended. That is, my analysis of the talk exposed internal thinking processes that were influenced by what an individual heard another group member say. The interactive nature of small groups, where an individual can say something that others hear, creates a dynamic opportunity to study how one's understanding is influenced when individuals *listen* to one another, engage in comprehension of the discussion, and construct a response that not only reflects what has been said, but also influences what others have yet to say. It is this dynamic interaction

that previous research on small group processes and outcomes had neglected that this study pursued in order to illuminate our understanding of how individuals learn by engaging with others in a small group context.

Overview

In Chapter Two of this dissertation, I present an overview of the literature focusing on three distinct areas of research: discourse comprehension, learning in small groups, and discourse within group settings. Chapter Three presents the details of how I set about answering my aforementioned research questions and includes: a description of the classroom context in which I gathered the data, the procedure I followed for collecting these data, and the manner in which I analyzed the data I was able to collect. I present the results of my analyses in Chapter Four organized into three parts. First, based on interviews with the students, I identify verbal and nonverbal indicators of listening in a group. Next, I demonstrate how those indicators were represented in the group interactions. Last, using the essays that students wrote individually as outcome measures, I show how individual outcomes reflected the group's discussion. Finally, in Chapter Five I discuss these findings in terms of what they reveal about the nature of listening in a small group focused on learning, the relationship between listening in a group and understanding, and group functioning. I also identify limitations of my study and implications for future work in the area of small group processes.

Chapter 2

Literature Review

In this chapter, I first discuss the historical frameworks in an educational psychology perspective on learning, focusing upon those theories that relate to how an individual actively constructs meaning through language. Next, I review the research related to learning in small group contexts. This overview is followed by a review of the literature related to small group discourse.

Comprehension as a Constructive Process

Throughout much of history, learning has been considered a fairly transmissive process; that is, older, more knowledgeable people told other, less knowledgeable people what they knew. In this way, information, or knowledge, was transmitted from one individual to another. This model was so prevalent that its influence over the American educational system can still be seen today (Darling-Hammond, Austin, Orcutt, & Rosso, 2001). One need only look at the great universities across the country for evidence of such effects, as most educational institutions have vast lecture halls designed acoustically to facilitate the sound of one voice – that of the knowledgeable professor. By this model, it is thought that those who have listened attentively should acquire the knowledge intended to be transmitted by the lecturer.

Since the 1970s, educational psychologists have considered learning to be more of a constructive process, with individuals actively involved in making information meaningful (Schallert & Martin, 2003). Although this idea was introduced over 100 years ago by psychologists such as John Dewey (1859-1952), Jean Piaget (1896-1980), and

Lev Vygotsky (1896-1934), it was not until the second half of the 20th century that the idea of individuals actively constructing meaning began to influence the field of education more broadly (Darling-Hammond, Austin, Orcutt, & Rosso, 2001), with educational psychologists such as Richard Anderson, John Bransford, and Jerome Bruner systematically exploring the role of prior experiences and knowledge on interpretation and recall of information (e.g., Anderson & Pearson, 1984; Anderson, Reynolds, Schallert, & Goetz, 1978; Bransford & Johnson, 1972; Bruner, 1981; Johnson, Bransford & Solomon, 1973; Morris, Stein, & Bransford, 1979). Although the traditional view of learning with more knowledgeable individuals sharing what they know with others was not abandoned entirely, this perspective differed in an important way: learning was no longer considered a transmissive process with the learner passively receiving information shared by another. Rather, learning was now believed to be a process that can happen only when individuals take in information, consider it, make sense of it, and integrate it with what they already know. That is, individuals "learn" by constructing meaningful understandings for themselves (Schallert & Martin, 2003). From within this framework, there are multiple theories about how this meaning-making process takes place, broadly considered as part of the constructivist or socio-constructivist views of learning.

Central to these constructive views of learning is language, as it is through language that students are able to construct and share the ideas, understandings, and questions that allow for the construction or negotiation of meaning to occur. As Wells (1987) pointed out, "Talking and learning occur simultaneously and spontaneously…it takes two to make conversation work: two to negotiate meaning and create the

opportunity for learning to take place" (p. 15). Language is often the tool through which thinking is shared, meaning is negotiated, and learning is facilitated. Consequently, I will present a historical overview of three central learning theories related to discourse comprehension, or the way in which individuals construct meaning through language.

Schema theory. Although not the first learning theory to recognize the individual's active role in the learning process, schema theory was particularly influential in that it recognized the role of one's prior knowledge and experiences in the meaning-making process (e.g., Anderson, Reynolds, Schallert, & Goetz, 1977). The initial appeal of schema theory was that it provided a way for explaining how people could efficiently interpret new information and experiences. It also helped to explain how individuals could have different outcomes even when exposed to the same information (Anderson & Pearson, 1984).

In brief, schema theory posits that individuals mentally organize information, experiences, and concepts into abstract categories according to similarities and differences. These mental structures, referred to as *schemas*, *frames*, or *scripts*, are organizational structures for storing/representing existing knowledge. These mental structures not only provide a way for individuals to interpret the world around them but also to store new information readily. For example, a small child encounters a four-legged animal with fur and a tail. Remembering when his mother previously knelt down beside this creature and said, "What a nice cat. Do you want to pet the cat?" the child points and says to his mother, "Cat?" Hence, the child starts to build a schema for "cat" that includes "four legs," "fur," and "tail."

It is worth reiterating that schema theory offered an explanation for how people could efficiently interpret new information and experiences, without having continuously to start anew. To build further upon the previous example, the child need not remember *every* four-legged, furry creature with a tail he has ever encountered in order to know that the new neighbors have a cat, even though he has never seen *their* cat. If, by chance the neighbors actually have a dog, rather than a cat, the child would eventually refine his "cat" schema to include "four legs," "fur," "a tail," and "does not bark" while building an alternative schema for "dog."

Schema theory indicated a significant shift in learning theories because it underscored the importance of the individual's prior knowledge and experiences in the construction of meaning. Prior to this theory, the widespread belief was that *language* carried its meaning somehow by direct association (Anderson & Pearson, 1984). In this way, it was thought that no interpretation was necessary to understand what another person meant. A speaker (or writer) simply selected the words that conveyed the intended meaning, and the listener (or reader) received those words and subsequently "knew" the information, too.

Starting in the 1970s however, researchers started to demonstrate that one's prior knowledge and personal experiences influenced the interpretation of information. In a study of how college students of different majors interpreted the same ambiguous texts, Anderson, Reynolds, Schallert, and Goetz (1977) found that students came to distinctly different interpretations of the same text by interpreting it based on their area of expertise (i.e., their major). Furthermore, research showed that prior knowledge not only

influenced interpretation, but could also be used to facilitate understanding and memory (e.g., Bransford & Johnson, 1972). With a growing body of evidence for the influence of organized prior knowledge, researchers and educators started to accept the notion that "comprehension of words, sentences, and discourse could not be simply a matter of applying linguistic knowledge. Every act of comprehension involves one's knowledge of the world as well" (Anderson et al., 1977, p. 369).

Construction integration. One criticism of schema theory, however, is that it implies a top-down approach by which individuals have organized mental structures that impose meaning on new information and experiences. Consequently, prior knowledge will constrain how one is able to interpret new information. As stated by Kintsch (1988), "Scripts and frames, as they were first conceived, are simply not workable: If they are powerful enough, they are too inflexible, and if they are general enough, they fail in their constraining function" (p. 164).

The Construction Integration Model (Kintsch, 1988) was proposed an alternative theory for comprehension. In contrast to schema theory, this model took more of a bottom-up approach to explain how individuals construct meaning. From a construction integration perspective, new information serves as a trigger, activating relevant pieces of prior knowledge stored throughout an individual's memory system. As these previously learned bits of information are actively brought together, the individual is able to construct a meaningful understanding of the new information from an integration of the bits into structures, not unlike schemas.

Social views of comprehension. Of primary importance to both schema theory and the cognitive integration model, the individual is placed directly in the middle of meaning-making and given an active role in constructing an understanding that is influenced by prior knowledge. Although socio-constructivists also subscribe to the idea that knowledge is actively constructed by the individual learner, they extend this idea to include the notion that knowledge creation is a socially shared experience (Prawat & Floden, 1994). Whereas both schema theory and Kintsch's (1988) constructive integration model recognized the role of prior knowledge in discourse comprehension, social views of learning added attention to the role of the social context. That is, all learners are not to be considered as isolated individuals, but rather as social agents, "located in a network of social relations, in specific places, in a social structure" (Kress, 1989, p. 5). Such a perspective allows for consideration of such issues as culture, identity, power, and agency in comprehension.

Acknowledging these issues is of great importance, as it affects possible interpretations and contributions within a given context. Consequently, the social context within which learning takes place not only matters, but it also affects how the interaction takes place, how each individual chooses to participate, and the way in which meaning is negotiated and mutually constructed (Holland, Lachicotte, Skinner, & Cain, 1998). That is, the way in which one shares one's knowledge, understanding, or experiences with others is an expression of one's self in relation to those others, which will affect what is considered and how it is interpreted.

If one considers, then, the social context of a classroom, one is likely to think of a teacher, who is in a position of power and authority, with a classroom full of students. Such a social structure will, in turn, affect what is allowed to become a part of the discourse, how the discourse evolves, and how it is understood. However, if one were to consider a learning context that involves student-to-student interactions, then one would likely also recognize a change in the power structure, as demonstrated by how, when, and what each individual contributes. In terms of how this might affect learning, "…humans often develop qualitatively different mental functions as a result of learning to use collectively derived symbols in regulating their own behavior" (Holland et al., 1998, p. 38).

Within a classroom, those involved in learning conversations might be a teacher and a student or student and student, as either pairing would allow for alternative points of views to come together. Indeed, it is the difference between individual understandings – the result of differing personal experiences – that often provides an impetus for dialogue to continue. Listeners will interpret what the speaker has said based upon their own prior experiences and knowledge (Wells, 1987). When students sense that another's interpretation differs from their own, a need for negotiation through discourse with others begins.

Issues of power, identity, and agency become especially important when one considers how a group of individuals come together to negotiate an understanding. This *negotiation* of meaning is not simply a give and take, whereby an individual must abdicate his or her previous understanding in order to accommodate that of another.

Rather, it is "an opportunity to surface and clarify points of agreement and disagreement….Disagreements provide impetus for research in the disciplines and can provide motivation for learning in the classroom" (Prawat & Floden, 1994, p. 40).

Furthermore, it is important to note that although teachers often dominate classroom discussions (Cazden, 1988; Mehan, 1985; Wells, 1987), learning can and does occur within a collaborative setting of peers (Salomon & Perkins, 1998). As Wertsch and Rupert (1993) pointed out, "individual mental functioning is formed through the internalization of social discourse" (p. 236), which does not limit discourse to teacher-student interactions. Thus, even though the power structure will change from one context to the next, social discourse for learning purposes is not restricted to individuals who fulfill certain roles. For this reason, research on learning has, over time, included learning in small groups.

Research on Learning in Small Groups

Interestingly, although socio-constructivist views did not have a strong influence on education in the United States until the last quarter of the 20th century (Schallert & Martin, 2003), group discussion was a common instructional practice some 50 years prior. As evidenced by a 1953 study regarding how college students perceived their level of mental activity when engaging in various classroom activities, "group discussion" was included as one of several learning situations students were to rank in order of most to least mentally active. Considering the data were collected from 1931-1950, and that "group discussion" consistently ranked high on the list (Brinkley, 1953), one can infer that small group discussion was incorporated into classroom instruction long before

socio-constructivism explained why it was beneficial to do so. Perhaps such use was related to the teacher's need to assess students' understanding, but the fact that students recognized such interactions as increasing their own mental engagement further supports the idea that knowledge construction benefits from putting ideas into words (Mercer, 1995).

With the increasing importance of socio-constructivist views, educators at all levels have purposely and systematically incorporated small groups into their teaching repertoire. Such groups can indeed support student learning, as they provide a context within which individuals can engage in a discussion that facilitates understanding of instructional concepts (Haworth, 1999). The use of small groups in learning contexts has been studied extensively for the past four decades. It has been promoted as a way to help teachers provide instruction that is suited to students at various levels. Small group instruction has been argued as helping individuals learn skills and concepts across content areas and age levels (e.g., Johnson & Johnson, 2009; Levine & Moreland, 1990; Slavin, 1983, 1996; Sweet & Michaelsen, 2007). Studies have included aspects of the group structure such as the formation of groups (Webb, Nemer, Chizhik, & Sugrue, 1998), assigning group roles (Saleh, Lazonder, & de Jong, 2007), how leadership behaviors evolve (Li et al., 2007), the optimal size for a group (Fuchs et al., 2000), the kinds of tasks that are best completed in group settings (Johnson & Johnson, 1992), and how to structure the groups for optimal learning to occur (Cohen, 1994).

Individuals vs. group performance. Of particular interest are studies that focused upon the benefits of using small group versus individual work on achievement.

An early study that tried to ascertain whether it was more advantageous to work individually or in a group used concept attainment as a measure of learning benefits (Laughlin & Doherty, 1967). Using attribute cards, students were asked to select a card depicting one of two shapes with four differing attributes and, based on feedback regarding whether or not the selected card exemplified the concept, make a hypothesis. Not only did cooperative pairs require fewer card choices, their hypotheses were also more sound than those who worked individually. McGlynn (1972) further pursued this line of research by comparing performance on the concept attainment task between cooperative pairs, competitive pairs, and competitive individuals. He found that cooperative pairs performed significantly better than competitive individuals as measured by the number of trials it took to arrive at the correct solution. Such studies may seem somewhat rudimentary by today's standards, as concept attainment using attribute cards may seem an artificial and limited indicator of learning. However, they do illustrate the long-standing interest in determining how learning in a small group compares to learning alone. With the surge of research on learning in small groups that occurred throughout the 70s, the 80s were a time when researchers settled on the idea that learning in small, cooperative groups was generally better than working in either small, competitive groups or working alone (see Johnson, Maruyama, Johnson, Nelson, & Skon, 1981, and Slavin, 1983, for reviews).

Although Wertsch and Rupert (1993) stated, "individual mental functioning is formed through the internalization of social discourse" (p. 236), research on whether achievement benefits of learning in a group transfer to the individual learner is still

sparse. For example, Olivera and Straus (2004) used word puzzles as a way to measure learning. After having all participants complete the word puzzles independently, they were assigned to one of four conditions where they worked through a parallel version of the word puzzles: group, video (where they watched and listened to those who worked in a group), feedback (where they worked individually, but were given feedback regarding their answers), and individual. Finally, students again worked through the initial set of word puzzles individually. Results showed that individuals who worked in groups or observed those in groups (video) performed significantly better on the final individual task than those who worked individually (with or without feedback).

Small groups within the classroom setting. Although such research is intriguing, as it attempts to identify the individual benefits of group learning experiences, the learning task used does not necessarily reflect the types of learning more typical of classroom settings. These word puzzles had a single, correct answer that an individual could determine as correct or incorrect without additional feedback or information. Such intellectual tasks might not reflect the complex nature of some academic learning tasks, such as those that require idea generation and problem solving (Olivera & Straus, 2004). Furthermore, conducting research within a laboratory setting means groups are short-term and temporary. Because research on group dynamics has demonstrated that established groups interact differently than new groups, and group development is related to individual performance (see Sweet & Michaelsen, 2007, for a review), it is important to recognize that the conclusions drawn from studying groups under laboratory conditions might not transfer to the small group learning that occurs in an actual classroom.

Recent research has tried to address such issues by using more authentic learning tasks within an actual classroom setting. For example, Cranney, Ahn, McKinnon, Morris, and Watts (2009) explored testing effects within an introductory psychology course. Because students in this class also participated in weekly, smaller, group tutorials, Cranney et al. were able to take a quasi-experimental approach and randomly assign the tutorial sessions to one of four conditions: group quiz, individual quiz, restudy, and control. They found further support for working in groups versus working individually, as students in the tutorial session that included a group quiz performed better on a follow-up pop quiz than students in the other three groups. Other research on the effects of collaboration within the context of the regular classroom has indicated that collaborative groups are more equitable in the distribution of learning opportunities than individualistic or helping groups (Esmonde, 2009), structured cooperative groups prompt more higher order thinking skills in response to specific problem-solving questions than unstructured groups (Gillies, 2004), more favorable perceptions of learning occur as indicated by increased interest, stronger intrinsic motivation, and greater cognitive involvement than in traditional, direct instruction (Hanze & Berger, 2007), and higher post-test scores are obtained for low- and middle-achieving students in heterogeneous groups than homogeneous groups (Leonard, 2001).

Notably, much of the small group research conducted has been done within the specific context of cooperative learning. Cooperative learning is an instructional strategy that, when implemented as intended, can help facilitate interactions amongst students by creating a reason for individuals to interact with one another in order to accomplish a

shared goal while simultaneously holding individuals accountable for contributing to the group outcome (Johnson & Johnson, 2009). Although within the field of small group research, cooperative learning and collaborative learning are often used interchangeably, for those who study cooperative learning explicitly (e.g., Johnson & Johnson, 1992; Kagan, 1994; Slavin, 1996), certain elements are considered indispensable to a cooperative learning structure. With some variation acknowledged, researchers have come to consensus regarding two essential elements of cooperative learning: positive interdependence and individual accountability (e.g., Johnson & Johnson, 2009; Marr, 1997; Nattiv, 1994; Slavin, 1987; Slavin & Kerweit, 1981; Stevens & Slavin, 1995). Teachers' failure to adhere to either of these two essential elements might help explain some of the inconsistent findings in the cooperative learning research (Antil et al., 1998).

It is important to note such discrepancies in the research on small groups. For, although one might argue that cooperative learning cannot happen without collaboration, it is possible to have collaboration outside of the cooperative learning structure. For my study, small groups were both cooperative and collaborative in nature, as the course selected used an instructional framework referred to as *team-based learning*. This instructional strategy not only incorporates the basic tenets of cooperative learning, but also provides a specific instructional sequence for facilitating student interactions.

Team-based learning. *Team-based learning* (TBL) is a specific instructional strategy developed and studied by Larry Michaelsen and his colleagues for the past three decades (Michaelsen & Fink, 2008). Primarily used at the post-secondary level, TBL provides a structure for facilitating learning in a small group context. As explained by

Michaelsen and Sweet (2008), within the TBL framework, the instructor strategically groups students together in such a way as to capitalize on individual differences, and these groups remain intact for the duration of the course. Throughout the course, students are provided multiple opportunities to work together on assignments that go beyond knowledge of course content to the application of key concepts. As with cooperative learning, student accountability is a critical element, and students are held accountable for not only their individual work, but also for the work they complete as a team. Through the use of readiness assurance tests (RATs), students are also held accountable for reading assigned material prior to class. Such preparation helps ensure that much of in-class time is spent working in teams on application-type assignments. These assignments, carefully crafted by the instructor, not only provide an opportunity for students to work together, but actually *require* collaboration among team members for completion. Additional components to TBL include both individual and team quizzes as well as frequent and timely instructor feedback.

Empirical evidence of TBL as an effective instructional strategy for supporting student learning in a small group context is still sparse. However, evidence of it as a strategy that enhances the learning experience is growing (e.g., Gomez, Wu, & Passerini, 2010; Letassy, Fugate, Medina, Stroup, & Britton, 2008; Nicoll-Senft, 2009). One study to provide some empirical evidence of higher student achievement associated with TBL was conducted with second-year medical students (Koles, Stolfi, Borges, Nelson, & Parmelee, 2010). Students performed significantly better on exam questions related to their knowledge of pathology-based content that had been learned through TBL than

questions related to pathology-based content learned through other instructional methods (e.g., lecture, independent study modules, laboratory exercises). Even though a strength of the study was that all students were exposed to the same instruction, content, instructors, and exam questions, one caveat is that the questions (and therefore the content knowledge they tested) were confounded with condition (i.e., TBL vs. other instructional formats).

Although my study is not designed to explore whether TBL is an effective instructional method for facilitating student learning within the small group context, its use did foster collaborative discourse between students. Holding students accountable for being individually prepared and contributing to the team's learning encouraged student contributions within the team context. Furthermore, assignments that required *application* of course concepts prompted richer discussions than those that might have occurred had students simply been asked to display their knowledge of a topic. Consequently, TBL promoted student interactions in pursuit of deeper understanding so that I could better investigate the nature of listening within an authentic learning context.

Research on Discourse in Group Settings

Although much of the research has focused on the learning, or outcomes, of small groups, another area of focus in small group research relates to the processes that take place within those groups. As discussion is an integral means through which group members interact with one another, many researchers have focused upon the discourse that occurs amongst group members for insight into such processes.

Teacher-led vs. student-to-student discourse. It is well established that teachers tend to dominate classroom conversation (Wells, 1987). Such teacher-dominated discourse can be attributed at least in part to a cultural discourse practice of teacher-initiated, student-response, teacher-evaluate (I-R-E) sequence so prevalent in classrooms (Cazden, 1988; Mehan, 1985). However, the I-R-E pattern has been criticized for stifling authentic discussion involving students' pursuits of interests, exchange of ideas, and questions that facilitate higher-level thinking (Fisher & Larkin, 2008; Hardman & Williamson, 1998). Indeed, "this [I-R-E] type of structure encourages reproduction and display of knowledge rather than the progressive transformation and improvement of knowledge" (Hmelo-Silver & Barrows, 2008, p. 51). Furthermore, when teachers direct all discourse, students are ill-equipped to engage in productive conversations when left in small, self-directed groups (Almasi, O'Flahavan, & Arya, 2001). Consequently, it is important to understand how productive talk occurs, particularly within the student-directed, small group setting.

Such research is of particular interest when the outcomes between small groups differ. That is, to answer the question of why some small groups perform better than others, researchers often look at what occurs amongst group members. For example, Hogan and colleagues (1999) found that, although all student groups in their study were asked to complete the same task, the conversations within those groups were noticeably different, with some groups eliciting more teacher interventions than others to remain focused and on topic. Upon further investigation of how students within the groups interacted with one another, differences in how students responded to presented ideas

became apparent. Those in the more successful groups were able to sustain the conversation, persist with ill-formed or conflicting ideas through resolution, and build upon one another's ideas. Hence, by looking at the discourse happening within the group, the researcher gained insight to help explain why some groups in their study were more successful than others.

Barron (2003) also explored the differences that occur within groups in order to help explain different outcomes between groups. Using a problem-solving task, she concluded that students who were in more successful groups, as determined by accuracy and completeness of answers to the problem, performed better not only on a mastery test (consisting of replication of the group problem) but also on a transfer task (consisting of a structurally parallel problem). Through analysis of the discussion that occurred within each of the groups, she found that it was not a matter of how much talk occurred within the group, differing achievement levels, or even whether someone in the group had actually mentioned the correct solution, but rather the responsiveness of group members to proposed solutions. Like Hogan et al. (1999) had found, successful groups were more likely to maintain conversational coherence, as one person's proposal was often linked to previous comments and group members were willing to continue discussing a proposal even if they were not yet ready to accept it as correct (Barron, 2003). Once again, analyzing the discourse that occurred within the small groups allowed for a better understanding of the different outcomes that occurred between the small groups.

Collaborative discourse. As discussion is an integral means through which individuals are able to learn and co-construct meaning collaboratively, it is important to

consider how students communicate with one another within the small group context in ways that facilitate their learning. Although using small group work in the classroom can set the stage for conversation amongst students to occur, it does not ensure that communication will effectively lead to the co-construction of meaning, or that individual learning will result (Barron, 2003). Skills are needed in order to communicate effectively with others (Erickson, 1996), and these skills involve both speaking and listening. Furthermore, as a review of the research demonstrates, recognizing the dynamic way in which speaking and listening interact and influence one another helps explain why some groups are more successful than others.

Speaking. Some of the research related to the benefits of learning in small groups has speculated that it is the opportunity to verbalize thinking that is afforded by being in a group that makes small groups advantageous for an individual's learning. This hypothesis was tested early on using the same concept attainment materials described earlier. In an attempt to determine whether it was the collaborative nature of working with a partner, or the opportunity to vocalize that explained superior performance of pairs over individuals, Durling and Schick (1976) randomly assigned participants to one of five conditions: vocalizing pairs, nonvocalizing pairs, individuals vocalizing to a confederate, individuals vocalizing to the experimenter, and nonvocalizing individuals. Their results showed that vocalizing conditions were superior to nonvocalizing conditions, with collaborative pairs performing better than individuals vocalizing to either the confederate or experimenter, leading the authors to qualify earlier research findings by stating: "the conclusion that groups are better than individuals at problem solving (e.g. Shaw, 1971) should be

qualified by a statement that groups are vocalizing and individuals are not" (Durling & Schick, 1976, p. 89).

This notion of whether it is the collaboration or the talk that accounts for differences between individuals and groups was again explored nearly two decade later, when Teasley (1995) investigated the role of talk in peer collaboration. Participants were given a computer-based scientific reasoning task to complete either alone or with a partner. Half the participants in each condition were encouraged to talk, while the other half were asked not to talk. Having created four conditions (talk dyad, no-talk dyads, talk alones, no-talk alones), she was able not only to compare the performance of those working collaboratively with those working individually, but also the results of those who talked with those who did not. Those in the talk conditions (either alone or in dyads) performed better than those in the no-talk conditions, indicating that the opportunity to talk may be more important than the opportunity to collaborate. Although no significant differences on final performance were found between those in the talk dyad and those in the talk-alone conditions, further analysis of the talk that occurred indicated that those who talked to a partner did more evaluating and explaining whereas those who talked to themselves simply described what was happening. Considering that interpretive utterances (i.e., evaluative and explanatory talk) were, overall, positively correlated with final hypothesis scores, and descriptive ones were negatively correlated with final scores (Teasley, 1995), such differences might have more significant effects over the long term than was allowed for in this study.

Although these two studies exemplify an attempt to tease apart the benefit of working with a small group from the opportunity to vocalize what one is thinking, much of the research on small group discourse has focused upon who does the talking, what the person says, and how the person says it. For example, sustaining topics, connecting topics, and embedding topics within one another have been identified as ways to establish coherence throughout a conversation (Almasi, O'Flahavan, & Arya, 2001). Anderson et al. (2001) identified what they described as a type of argument stratagem (e.g., positioning in relation to a classmate's argument stratagem, managing participation amongst group members) and then looked for how such an argument might spread across group members by analyzing who said what. In a study of discourse patterns, Hogan, Nastasi, and Pressley (1999) analyzed what was said within peer-directed groups to determine the types of statements that occurred, the interactions that occurred between participants, and the level of complexity in student thinking that was represented. Other studies have considered the amount of speaking that occurred and further classified the things that were said into categories such as elaboration, questions (Johnson, Johnson, Roy & Zaidman, 1985), hypotheses, or metacognitive statements (Teasley, 1995).

Listening. Fewer studies have been done regarding listening within small groups for learning purposes. This aspect of collaborative discourse cannot be overlooked, as there is always the potential for listening to occur whenever someone is speaking (Erickson, 1996). Perhaps part of the reason for the lack of studies on the relationship between listening and learning in small groups relates to the challenge presented in determining whether someone is truly listening or not. Although there may be behavioral

cues that could indicate listening (e.g., making eye contact, head-nodding), other aspects of the listening process are less overt. Through a confirmatory factor analysis, Halone, Cunconan, Coakley, and Wolvin (1998) found five separate dimensions to the listening process: behavioral/verbal, behavioral/nonverbal, behavioral/interactive, cognitive, and affective. As one might expect, only the behavioral components included observable aspects. Thus, trying to establish whether someone is listening or not (at least from an observational standpoint) presents some challenge for a researcher.

It is important to recognize the complexity of listening as a *process*, as failure to do so might lead one to assume learners are listening when they are, in fact, not listening at all. For example, one of the early studies conducted on oral interactions within the cooperative group setting simply coded *vocalizing by others* as listening for the individual participant (Johnson, Johnson, Roy, & Zaidman, 1985). These researchers then correlated the oral interaction factors (i.e., speaking and listening) with achievement and found no positively significant correlations between listening and achievement, with most of the correlations being negative (albeit insignificant) in nature. If listening is considered more than simply being within the audible range of the speaker, however, then studies of listening should reflect such complexity. Assuming that one is listening whenever others are speaking, as did Johnson et al. (1985), can lead to dubious, and even incorrect, conclusions.

It is, therefore, necessary to consider that the listening/speaking relationship is not guaranteed; speaking only provides an *opportunity* for listening to occur. Illustrating the choices one makes when others are speaking is a study by Do and Schallert (2004). In

their study of how emotions affect classroom discussions, they identified primary components to the classroom discussion experience – which prominently included both talking and listening. However, through observations, stimulated recall interviews, and students' self-reports, they determined that attending and tuning out were also frequent aspects of taking part in class discussion. Of interest to the present study is the notion of tuning out, or those times within a conversation when listeners fail to process fully what was said. According to their analysis, tuning out provided participants with a temporary reprieve from negative affect, and often arose from listening to something that evoked such negative feelings as frustration, annoyance, or boredom.

Although their study took place in a seminar class rather than the small group context, it is reasonable to believe that tuning out could occur just as readily within such a setting. As in the seminar class, for example, students in small groups can experience feelings of frustration because someone in the group is continuously interrupting, too bossy, or too inflexible in his or her views and, in order to cope with such frustration, the student resorts to tuning out parts of the conversation. Consequently, although tuning out can be an effective coping mechanism for dealing with negative affect, it has the potential to hinder group processes. When one group member disengages, there is potential for future interruptions in the form of increased clarification questions or repetition of information, which might disrupt the conversational coherence that has been found to be a characteristic of successful small group discourse (e.g., Barron, 2003).

It is important to remember the interdependent nature of speaking and listening within collaborative discourse. As described by Rhodes (1993), communication is not a

linear process in which one speaks, then listens, then speaks again, but rather a transactional process in which one simultaneously sends and receives messages. As he explains:

> Listening, then, is a complex process that includes both covert (intrapersonal) and overt (relational) activities. During a communication event I take in and process "messages" from you (interpersonal); I use these "messages" to create meaning (intrapersonal); and I provide you with a response that lets you know the meaning I have created (relational). You do the same. *By continuously and simultaneously listening carefully, we use one another's responses to monitor our progress toward understanding and to modify subsequent communicative choices, if necessary* [italics added]. (p. 225)

Rhodes' explanation of the dynamic interplay of listening and speaking is noteworthy. As one of the goals for my study was to examine the processes involved in group discussions in order to explore the influence of listening on individual understanding, it is important to consider how overt behaviors not only indicate covert processes, but might also influence them.

***Collaborative discourse through the intermingling of speaking and listening*.** As previously explained, research on small group discourse has identified one characteristic of successful small groups as the ability to maintain coherence throughout the discussion (e.g., Almasi, O'Flahavan, & Arya, 2001; Barron, 2003). It would seem, then, that listening would be an important aspect of successful group collaboration, for one cannot coherently build upon what was previously stated without listening – that is *processing* – what was said: "A competent, or effective listener then, must be able to respond appropriately" (Rhodes, 1993, p. 224). Although individuals often rely on certain overt behaviors (e.g., eye contact, nonverbal gestures) to determine whether someone is being a good listener (Imhof, 2002; Sangster & Anderson, 2009), such behaviors are not

necessarily indicative of listening. One could, for example, face the speaker and nod in agreement, but not actually process what was said – as in tuning out. In such circumstances, the "listener" would be less able to contribute an appropriate verbal response that facilitates conversational coherence.

Hence, identifying indicators that reveal covert listening processes could aid researchers in continued exploration of effective collaborative discourse, and ultimately aid educators in promoting effective small group discussions. Exposing such covert processes may seem unfeasible without relying upon the participant's self-report. Such research can be problematic, however, as getting at listening processes in this way tends either to tap into social perceptions of listening, or suggests a perception of listening that becomes integrated into the participant's thinking and behavior (Purdy, 2000). It would, therefore, be beneficial to identify verbal contributions that might indicate listening processes in addition to the traditional nonverbal gestures of eye gaze and head nods. If one considers the interdependent nature of listening and speaking, that listening allows us to respond in appropriate ways and contribute coherently to the unfolding discussion, then it is reasonable to consider what one *said* as an indication of how well one *listened*: "We can only know if a listener has responded appropriately if we can look at a response in relation to its stimulus" (Rhodes, 1993, p. 224). Furthermore, verbal indicators would provide a framework for studying the dynamic interplay of listening and speaking in the evolution of a coherent conversation.

At the most basic level, then, a verbal contribution that simply repeats what another person has said is one way to signal understanding and can serve to facilitate

continued conversational flow (Greer, Andrade, Butterfield, & Mischinger, 2009). Beyond simple repetition, however, one might summarize, or paraphrase, the speaker's words, restating what was said in a fresh way. Indeed, paraphrasing/restating has been recognized as a behavior indicative of good listening (Imhof, 2002). Perhaps the reason such an overt spoken act points toward covert listening processes is the realization that to paraphrase accurately what was said, one must fully listen to the speaker and make meaning of his or her words. Whenever it happens that the paraphrase does not match the intended meaning, the initial speaker has an opportunity to refine or clarify earlier statements. Thus, paraphrasing will, at times, prompt all participants to continue their negotiations of meaning.

Furthermore, summarizing what someone else has said can help build continuity throughout the conversation, as one group member acknowledges what was said and then proceeds to build upon the idea (O'Connor & Michaels, 1997). Such a conversational move would seem to support relatedness between individuals' contributions, a characteristic found in the discourse of successful groups (e.g., Barron, 2003).

Paraphrasing can also help set the stage for asking questions that promote further reflection, continued listening, and on-going communication amongst learners rather than creating an atmosphere of interrogation that puts the speaker on the defense for his/her ideas (Garmston & Wellman, 1999). For example, teachers who paraphrased incongruous student statements within the small group setting were able to prompt students to reconsider their ideas and recognize errors in their thinking (Hogan et al., 1999).

In contrast to summarizing, asking questions more explicitly encourages others to elaborate further, explain, clarify, or become more precise with their words. Student questions are unlikely to initiate the I-R-E pattern that teacher questions do, but rather indicate what information is needed and facilitates further conversation: "Unlike teachers, students don't ask questions when they already know the answer…students' questions follow up something someone else has said" (Nystrand, Wu, Gamoran, Zeiser, & Long, 2003, p. 188). Questions can also indicate how well the listening process is going. For example, the question, "What did you say?" could indicate that the listener had temporarily tuned out and needs the speaker to repeat him/herself, whereas the question, "What did you mean by that?" likely indicates further clarification is needed to understand what has been heard.

In contrast to the questions that ask for repetition or clarification of a previous comment are the questions that acknowledge that one is missing information, revealing a lack of understanding and the need for further discussion as a means for better grasping a concept (Hogan et al., 1999). Volet, Summers, and Thurman (2009) studied videos of college students in a veterinary science class working on a case-based project in small groups of six. They realized that asking questions, particularly "how" questions that elicited explanations rather than simple facts, seemed to facilitate ongoing co-construction of knowledge amongst group members. Furthermore, when explanations were perceived as tentative, speakers were seen as willingly opening themselves up to questions, thereby promoted further negotiating of meaning, and deliberatively moving themselves into a listening role.

Summary

In conclusion, small groups continue to be considered a viable instructional method for supporting individuals in the co-construction of meaning. As explained earlier in this chapter social views of comprehension help explain why such groups would be advantageous for learning. Previous research has already demonstrated that individuals in groups generally outperform those who work alone. Research has also explored the ways in which small groups are utilized in the classroom is related to the different outcomes of groups. Team-based learning is a specific instructional technique through which teachers might be able to ensure more consistently positive outcomes for small groups. Implementing an instructional strategy that requires students to take a more autonomous role in their learning is tantamount to a paradigm shift (Maloch, 2004). As students in a small group are no longer directed by the teacher, the discourse that evolves will represent the co-construction of meaning in a potentially more complex manner than the more constrained initiation-reply-evaluation sequence first identified by Mehan (1984).

Previous studies on discourse in small groups have focused primarily on what is said in terms of what it offers to the group, but has ignored how what is heard might be taken up by the individual. In the next chapter, I describe my study for exploring listening within the context of small group discussions. The aim of this study was to shed some light on the ways in which small group interactions influences individuals' learning.

Chapter 3

Method

This study was qualitative in nature. It took place in a college level history class that was already structured to incorporate small group work. Although it is possible that the daily presence of a researcher in the class, as well as the use of audio and video equipment during team activities may have affected student interactions, the study was not designed to change deliberatively or systematically what naturally occurred during small group discussions related to assigned learning tasks. The goal of this study was to understand how students listened to one another within a small group setting and how those listening behaviors were connected to individual learning. In an attempt to provide an emic account of such listening behaviors in an academic context, I attended all class days throughout the semester, with the exception of the final class day and those days on which the midterm and final exams were given. An interpretivist stance was taken because the nature of listening within a small group learning context is still an ill-defined phenomenon in the research literature, and the indicators of listening in this context have yet to be determined. Also, I was not seeking to test these listening indicators for their effects on learning, but rather explore the relationship between these indicators and individual learning.

Participants and Setting

The authentic learning environment to which I had access was an undergraduate history survey course that served to satisfy a basic core requirement for undergraduates offered at a large, south-central, public university. Students who enrolled in the course

represented various degree majors and were at various stages of coursework (i.e., from freshman to senior status), and thus provided a diverse set of participants. The course was also considered a somewhat challenging course, as shown by the fact that final letter grades for the Fall 2011 semester, when I gathered the data, ranged from A to F, with the median final grade being a B-. (See Table 3.1 for demographics of class composition.)

Table 3.1. *Class Demographics*

	Fall 2011 *N* = 77
Gender	
Female	48
Male	29
Class	
Freshman	9
Sophomore	23
Junior	21
Senior	24
Grades	
A	2
A-	8
B+	7
B	15
B-	16
C+	7
C	9
C-	4
D+	0
D	2
D-	0
F	3
CR	1
W	1
Q	2

Course enrollment settled at 77 total students once the first few class meetings had passed. The class met twice weekly for 75 minutes each day. The course instructor, a Distinguished Senior Lecturer who had taught at the university for 18 years, had used team-based learning as an integral part of course instruction for the previous three

semesters so small group discussion was already a regular and expected in-class activity in her class. Of the class meetings, at least 75% involved some group work with team members in some way. Students were assigned to teams of five to six members that were balanced in terms of gender and diversified in terms of major and class level to the extent possible. These teams remained the same throughout the semester, allowing for trust, cohesion, and collaborative discourse behaviors to develop over time within the same group.

The course content consisted of five units, with each unit's instructional routine as follows:

Day 1: Individual and Team Quizzes

Day 2: Teacher-Directed Lecture and Student Questions

Days 3-5: Team Projects (completed *during* class)

The quizzes that were administered on Day 1 included 25 multiple-choice questions. Students would spend the first 25-30 minutes of class individually answering the quiz questions and would submit their individual answers to each question via the classroom response system (iClicker). Then, students would gather with their assigned team and discuss each of these quiz questions. Once they had come to consensus regarding the answer, they would submit their team answer and receive immediate feedback regarding whether that answer was correct or not. If a team answer was incorrect, they would continue to discuss the other answer options, submitting an answer until they had identified the correct one. As these discussions focused on identifying correct answers to

multiple-choice quiz questions rather than developing an understanding of course concepts, these discussions were not my focus and were not audio taped for analysis.

In contrast, Team Projects that occurred on Days 3, 4, and 5 of each unit involved students working within their assigned team to answer a particular question, participate in directed discussion, and produce a final team product. Each project was designed such that teams could complete it during one or two class sessions. Students were expected to come to class prepared on these days by following the directions posted on the course website. They worked together to complete all team projects during class time, and, if someone was absent, there was no opportunity to make up the work. Although the team quizzes provided additional opportunities for students to work together throughout the semester, I chose to focus on the talk that occurred as students worked on these projects (Days 3-5) for my study on small group discourse.

Team activities, assigned on Days 3, 4, and 5 of each instructional unit, were of two general types. One required team members to divide assigned readings among themselves following any special instructions posted for them (i.e., each student would read one or more primary source documents before coming to class guided by specific questions). During class, individuals reported on their assignment to the team, then worked together to identify and discuss ways in which the documents related to each other, perhaps by identifying overarching themes or finding significant points of difference. The second type of assignment required all team members to read the same material (primary sources, passages from the textbook, etc.). In these cases, each team worked to develop a deeper understanding of the readings' underlying assumptions and

themes or to analyze them in light of a new concept (e.g., how the reading reflected Progressive ideals).

To help facilitate team discussions on each of these activity days, the instructor had designed a template, or activity sheet. These activity sheets did not have "right" and "wrong" answers inasmuch as they provided a framework to help students compare, organize, analyze, and evaluate the various readings. Each team would receive one of these templates, usually on an 11 x 17 sheet of paper, and would work together to complete it during class. Although the instructor would collect these sheets at the end of each class period, she would often survey the class by having teams share out, and sometimes defend, their conclusions. Students received participation credit for completion of these activities, rather than a specific grade for each one.

Procedure

This study followed the process approved by the Institutional Review Board at the University of Texas to ensure that ethical standards of research were followed in the protection of the rights of human subjects.

Obtaining consent. Prior to the semester's start, the course's instructor communicated with enrolled students regarding course expectations via email and noted in these preliminary emails that there would be a doctoral student monitoring the class throughout the semester. Thus, students were made aware, prior to the first class day, that there was an established expectation for small group work and that someone would be observing the classroom. During the first class session, Dr. Nepen (a pseudonym) introduced me to the class, told them I would be observing throughout the semester, and

that I would explain the details of my study at a later date. She also noted the presence of video cameras placed throughout the room at this time. Thus, students were informed that this class was being observed from the onset of the course.

Throughout the semester, all students also participated in and were recorded during group learning activities as a regular part of the class. So that students would find these recordings relevant to the course, the team audio recordings were made available to students for further reflection after class. To prevent students from feeling self-conscious regarding these recordings, each team's recording was made available only to those who were a part of that team via the private online "Group Spaces" on Blackboard. That is, each team's discussion was posted to a private group space so that only those who were assigned members of the team had access to that team's conversation.

Although students were made aware of my presence and of the video cameras at the beginning of the semester, they were not told about the details of the study until the fifth class day, after the instructor had explained the expectations of the course and students had had an opportunity to complete the first team activity. At the end of the class period, the instructor and TA left the classroom while I explained to students that I was interested in how participation in small group discussion helped individuals better understand course concepts. Students were not asked to sign the form at that time, but rather encouraged to take the form with them to read it in full and return it during the following class period. As the form provided a place for students to check "Yes" or "No" regarding permissions granted, every student was asked to return a form. Of the 77 students in the class, 74 students completed a consent form, demonstrating a 96% return

rate. In this way, students were aware that they were being recorded during the class; however, only students who provided consent were included in final transcripts and subsequent data analyses accordingly. Students had the option to participate in the study in various ways by granting permission to me for each of the following:

- to include their words from the audio recordings in a written transcript;
- to analyze their actions on the video recordings for indications of learning;
- to access their survey responses completed as part of the class;
- to access the team projects completed in class;
- to access their final grade and other individually completed work for class.

When provided with the consent form, students were told that their instructor would not be aware of whether they had agreed to grant me access to their data or recordings until after final grades were released. Thus, although all students participated in the activities as a part of regular class instruction (with the exception of the interviews), they had the right to exclude any/all of their data from the final analysis without prejudice. The varying levels at which students chose to grant permission demonstrates that students understood and took up their rights to participate in the study to the extent to which they were comfortable (see Table 3.2).

Table 3.2. *Number of Students Granting Permission for Each Data Aspect on the Consent Form*[1]

	Yes	No
inclusion of words on audio recording in written transcript	70	4
analysis of actions on video recording	67	7
access to survey responses for analysis	73	1
access to team projects	73	1
access to final grades and individually completed assignments	60	14

[1]Note: Three students did not return a consent form, one of whom eventually withdrew from the class.

Data collection. All data were collected during the Fall 2011 semester, starting at the beginning and continuing through to the end of the semester. I was present during each class session, with the exception of the midterm and final, and took observational notes throughout each class period. Three video cameras were set up throughout the classroom from the onset of the class. Until consent was obtained, all three cameras were directed towards the instructor and only one camera was turned on. In this way, students were able to become accustomed to the presence of the cameras prior to actual audio/video data collection. Each team had a digital audio recorder placed in the middle of the group for the duration of their discussion on all team activity days. Group discourse data focused on those days when students were working on team projects during the third and fourth instructional units, which was a total of six days, three in October and three in November. Furthermore, twelve students from the three focal groups were interviewed in order to gain insight into individual listening processes. Students were prompted during the interview using copies of the team activity sheets from Units 3 and 4. In all, the multiple data sources for this study included: audio and video recordings of small group work, individually-written essays and journal entries, observational field notes, interviews, survey responses, completed team projects, and final exams.

Team selection. As the students were assigned to a total of 13 teams, the number of teams on which to focus for full data gathering and analysis needed to be reduced in order to manage the data successfully. Using the instructional schedule of the class, a timeline was created by which to narrow the number of teams to three (see Table 3.3). In an attempt to identify teams that might provide interesting differences in

discourse/listening patterns, students were asked to complete different surveys related to communication and team experiences at various points in the semester. The surveys selected include the *Communicative Adaptability Scale* (Duran, 1992), the *Team Survey*, and the *Heedful Interrelating in Collaborative Educational Settings Scale* (Jordan & Daniel, 2009), which I will explicate next.

Table 3.3. *Timeline for Identifying Teams on which to Focus Data Collection*

Week	**Instructional Focus**	**Study**	**Survey**
1	Introductions	informal, global observations of whole class (14 teams)	Communicative Adaptability Scale (CAS)
2	Intro/Unit 1	‘’	
3	Unit 1	*Obtain Informed Consent*	
4	Unit 1	narrow to 6 possible teams	Team Survey #1
5	Unit 2	‘’	Peer Evaluation #1
6	Unit 2	‘’	
7	Unit2/Midterm	narrow to 3 teams for intense focus	
8	Unit 3	‘’	
9	Unit 3	‘’	
10	Unit 3/Unit 4	continue observing 3 focal teams	Team Survey #2 Heedful Interrelating Survey
11	Unit 4	‘’	Peer Evaluation #2
12	Unit 4	‘’	
13	Unit 5	begin interviews of individual students from focal teams	
14	Unit 5	‘’	
15	Unit 5	‘’	Team Survey #3
	Final Exam	‘’	

Communicative Adaptability Scale (CAS). This instrument was developed as a self-report measure of students' perceptions of their ability to communicate with others through six distinct dimensions: social composure (e.g., *My voice sounds nervous when I talk to others* – reverse coded), social confirmation (e.g., *I am verbally and nonverbally supportive of other people)*, social experience (e.g., *I find it easy to get along with new people)*, wit (e.g., *I often make jokes when in tense situations)*, appropriate disclosure (e.g., *When I self-disclose, I know what I am revealing*), and articulation (e.g., *I sometimes use one word when I mean to use another* – reverse coded). There are five statements for each dimension, for a total of 30 statements (see Appendix A). The original instrument asked individuals to rate themselves on a 5-point Likert scale (1 = "never true of me" and 5 = "always true of me"). For the purposes of this study, a 7-point Likert scale was used, as it allowed for greater variance in total scores, thereby allowing scores to range from 30 to 210. Higher scores indicated higher levels of communicative competence.

The CAS scale was selected as a tool for team identification because of an earlier study by Do and Schallert (2004) that found students who were considered to be "midtalkers" scored highest on this scale, whereas those who were considered "nontalkers" and "talkers" scored lower. That is, the results of this survey demonstrated a relationship between how much an individual contributed to the discussion and how adept the individual was at communicating with others. In that study, "midtalkers" knew how to manage the amount of their contributions to the discussion so as not to dominate the talk. As my study proposed to examine listening behaviors within a small group

context, it seemed fruitful to have variance in individuals' communication skills so as to have different amounts of talk (and so different levels of listening) to observe. Although these surveys were distributed prior to team formation, the results were used to help me identify which teams might allow for the most interesting discourse rather than contributing to the assignment of students to teams in the first place.

Team Survey. This instrument was developed by the course instructor[1] with the help of a curriculum specialist to understand better student interactions within the team setting. This instrument offered different information than the CAS as it focused upon *team* behaviors rather than *individual* communication preferences through statements such as "*team members listen to each other*" and "*all team members' perspectives are explored when making decisions.*" This survey includes 21 statements to which students respond on a 7-point scale of "not at all true of my team" to "very true of my team." Agreement with each of these statements is thought to indicate greater team effectiveness. As the survey is still being validated, psychometric properties are unavailable. However, as the instructor had already incorporated the survey as a part of the course sequence, it served as an additional tool for screening possible teams for my focus. One important consideration was the possibility of student responses to reflect desirability rather than accuracy, as students were told that the behaviors included in the survey "contribute to team effectiveness." Having students complete this survey online, with an introductory message from the course instructor that explained, "The information

[1] In order to protect the confidentiality of the student participants, identifying information has been removed from the study's description. If the reader should want further information regarding specific elements of the course, I would be glad to supply the information in a separate communication.

in this survey will help us improve the course structure overall, so we will not be viewing it until after the term ends and grades are posted" should have helped to mitigate such desirability issues.

Heedful Interrelating in Collaborative Educational Settings (HICES-6). This survey, developed by Jordan and Daniel (2009), is also a self-report measure. It measures students' perceptions regarding their own interactions with peers within a group context while working on collaborative educational tasks. The survey contains six items on which students rate themselves on a 7-point Likert scale (see Appendix B). Scores on this scale can range from six to 42, with higher scores indicating more heedful interrelating. Cronbach's alpha for this scale is 0.91. Although this survey was distributed after the focal teams had been identified, I had thought it might provide additional descriptive information for each of the focal teams.

Classroom observations. Observations of classroom interactions began with a broad view and, over the course of the semester, focused upon a smaller and smaller number of student teams. Three main data sources were collected throughout this time period: observational field notes, video, and audio recordings.

Through the end of the first instructional unit, a period of approximately one month, I attended class each day in order to get an overall sense of how classroom expectations were communicated, the developing sense of classroom community, and student responses to the team tasks. My primary objective during this time was to determine which teams might provide interesting contexts and possible contrasts for further focus upon listening indicators. Video cameras were set up and team talk was

audio recorded during this time, though I had no initial plans to transcribe or code all of these data. There were three reasons for having these recordings: (1) it helped create a routine expectation for students and established a sense of normalcy with regards to being recorded; (2) the recordings could serve as supplemental information to my field notes for team identification; and (3) they allowed me to determine audio quality and provided me time to make adjustments as necessary. Furthermore, the audio recordings were made available to the teams via Blackboard. The goal for allowing students to refer back to these recordings throughout the semester was to help students feel as though the recordings were relevant to the class, thus making them more tuned in to the quality of the audio recording. Access to their own team's recordings could also help put students at ease regarding the inclusion of their words in the final transcript. Although these recordings were made available in a timely manner (before the next class period), at the time of the interviews (which did not occur until the 13th week of class), only one of the twelve students interviewed had listened to even one team recording. Most students stated that they were either unable to locate the audio files online, or had not felt a need to listen to them yet. Being present in the classroom during this time also helped me to establish trust with the students, so that they became comfortable with my presence and came to view me as a nonthreatening and nonjudgmental observer of their conversations. Their acceptance was demonstrated by the fact that twelve of the eighteen students who were approached via email about the possibility of an interview outside of class time agreed to do so.

Once the second instructional unit began, I reduced the number of teams for observational focus by half. I continued to take field notes, but limited my observations to six of the teams. Video cameras were set up to capture at least three of these teams during team projects. Although all 13 teams recorded their team talk using audio recorders, I only listened to recordings of the six identified teams. My goal during this time was to determine which three teams would serve as my primary focal groups. I continued to be present in class on all days, which helped me understand the instructional background for each of the assigned team projects and further establish trust with the student participants. One thing of which I was mindful during this time was students' perceptions of my relationship with the course instructor and teaching assistant. As I would be asking students to volunteer for interviews, it was important that they trusted I would not report back to the instructor or TA afterwards.

The third instructional unit began immediately upon completion of the midterm exam, which was also the midpoint of the semester. At this point, I had identified three teams on which to focus observations and discourse analysis using the three surveys previously described, peer evaluations, my own observations of the teams engaged in team projects, the audio and video recordings taken so far, as well as the level at which the team members had consented to participate. For the purposes of this study, I identified three teams in which all members had agreed to include their words from the audio recordings in a written transcript, granted me access to their team activity sheets, and were dissimilar groups in terms of communication behaviors.

At this point, observations were most intense, as I was trying to understand the phenomenon of listening within a small group learning context. As it was difficult to take detailed field notes on three teams at once, I hired another graduate student to assist me with taking observational field notes. Each day, she was assigned one of the three focal teams to watch and take notes regarding observable behaviors as well as note things that were not visible on the video recordings (i.e., what students might be looking at on their laptops). I observed the other two groups. So that I might have some insights into each of the focal groups, the group(s) on which each of us focused rotated on a daily basis.

Interviews. In order to gain further insight into whether and/or how students were cognitively engaged in the ongoing conversation within their teams, I conducted interviews with 12 individuals after instructional unit 4 had concluded. These interviews were one-on-one and semi-structured, with some basic questions used to help frame the interview, but with the freedom to follow a student's response when appropriate (see Appendix C). The interviews were the one aspect of data collection that took place outside of class time. Thus, those identified for interviews included those who provided consent and were willing to give an hour of their time to help me better understand the nature of their team's conversation.

I asked students to schedule a time to meet with me and reviewed at least one of the audio/video recordings of the scheduled student's team prior to that interview time. Reviewing these data helped me understand generally the nature of that team's discourse and the individual's contributions. Interviews were audio recorded and transcribed for later analysis.

Journals. As part of the instructor's expectations for the course, students were to keep an online journal, responding to course readings on a regular basis. Prompts for each entry were posted on the class website, and students were generally directed to complete these journal entries prior to class. Although students were not expected to submit these journal entries on a regular basis, the instructor explained at the beginning of the semester that either she or the TA would review their online journals at random times throughout the semester and, at the end of the semester, students would be expected to turn in a hard copy of their journal along with a short explanatory paper over it. As I did not have access to the journals until after the semester was over, they were analyzed once I had completed all classroom observations for any evidence they might provide in terms of listening and learning. Consequently, these journal entries did not inform my classroom observations or my choice of focal teams; however, they were useful in identifying the focal activity on which other analyses were based once all data had been collected.

Data Analysis

My analysis of the data was progressive, inductive, and micro-analytical in nature. In brief, I first prepared the audio and video recordings in order to facilitate the creation and later coding of the transcript. Next, I derived categories from the interviews for indicators of listening and identified portions of the team discussions where such listening indicators were present. Finally, I analyzed the transcripts and written essays for evidence of listening and transfer of learning. In this next section, I elaborate on my analytic process.

Preparing the video and audio data. As previously described, the three video cameras were set up around the periphery of the classroom in order to mitigate any effects their presence might have had on the group discussions. Using the camera's zoom feature, I was able to focus each camera on a single group and capture the overt interactions of the team members fairly well. However, as the video cameras were not within audio range of the teams, the camera's accompanying audio was unintelligible in terms of the team's oral discussion. In order to have a record of what each team member said and what they were doing as they said it, I found it necessary to synchronize each team's audio recording obtained from the digital audio recorder with their corresponding video.

Within the video editing software *Final Cut Pro X*, I was able to use the visual equalizer to identify segments of the team's audio recording that visually matched the video's audio recording. For example, a loud cough or laugh that was captured by both the camera's audio recorder and the team's audio recorder could be visually located on each of the audio tracks and then used to synchronize the team's audio recording with their video. If the instructor had stopped the class at any point in time during the activity, then that, too, could be used as a common point on the video and audio recordings to synchronize these two data sources. Once the audio and video recordings were synchronized within the *Final Cut Pro X* software program, they were exported into *QuickTime Player* as a single movie file. This process allowed me to have a video record of each team during these activities with clear audio of the team's discussion for further analysis and coding.

During this synchronization process, I focused on these data at a more macro-level, looking for indications throughout each recorded activity that the video and audio were in alignment. Thus, I was familiar with ways in which individual team members engaged in the activities only generally across each of the six activities, but felt confident that these recordings would provide visual and auditory evidence of listening indicators.

Analyzing the interviews. Even as I was synchronizing the video/audio recordings for the activities included in Unit 4, I had started interviewing students. Thus, I was only familiar with the teams' interactions for Unit 3's activities at the time most of the interviews took place, and had not yet identified the focal activity on which I would base further micro-analysis in order to link listening and learning. As I had recorded these interviews, each audio recording was first transcribed. I then read through each individual transcript, looking for student comments that related to listening and learning within the team context. Using an open coding approach, I categorized these comments such that similar ideas were grouped together (e.g., possible listening indicators, poor/inconsistent indicators, learning-related comments, self-descriptions of team). Within each of these categories, I looked for subcategories that might further delineate comments, revealing the nuances within each category. For example, within the category of "possible listening indicators," students referred to multiple types of verbal comments someone might make that would indicate listening (e.g., they summarize, they disagree). I reviewed the interviews multiple times, looking for further examples that would fit into these categories, as well as ideas that were not yet represented. I also looked for ideas that were represented by multiple individuals, even if they were not immediately relevant to my

research questions (e.g., the teacher's role). Once I had exhausted the interviews for ideas that might inform my analysis of the teams' discussions as captured on the video and audio recordings, I reviewed each of the interview segments with respect to each of the categories created and made some slight adjustments so that the interview data was matched to the most appropriate category.

Preparing and coding the transcripts. Using the synchronized audio/video recordings of the team discussion, I took detailed notes of several of the teams' conversations regarding individuals' interactions and possible segments for further analysis. Once I had identified the focal activity, I transcribed the teams' discussion. Although it would have been possible to create the transcript from just the teams' audio recording, I found the video quite helpful, particularly in the beginning, for identifying which person was speaking. Then, using the verbal listening indicators derived from the interviews, I reviewed the transcripts to see if these types of comments were indeed present in each team's talk and was satisfied that these types of comments were represented in the discussion.

As I was interested not only in what individuals *said*, but how what was said indicated *listening*, it was necessary to add to the transcript notes any overt nonverbal actions that were visible on the video recording. Also, for those individuals who did not orally contribute to the conversation, it was necessary to capture what they were doing as the speaker was talking so as to determine more accurately whether they were listening or tuning out. Thus, upon review of my field notes and video recordings, I expanded the

transcript to include observational notes for each individual for those segments that aligned with the essay topics I had identified, the process for which I explain next.

Coding the essays for evidence of learning. As my goal was not to code each comment but rather to understand how certain comments, as indicators of listening, were related to individual learning, I turned next to the individuals' essays. The instructor had already scored each essay. However, I would argue that relying on a single overall score as a measure of learning does not reveal the variety of ideas or multiple layers of understanding that might actually be present. Therefore, even though a grade or score is often used as an outcome measure, I chose to do a content analysis of the essays for the ideas that were represented across individuals within each team.

Starting with the essays for one of the focal teams, I considered each individual essay for the different ideas that were represented. As I had already started to create the transcript of the team's discussion that took place in preparation for this essay, I was familiar with some of the ideas that the team had discussed. For those ideas I knew the team had discussed that I also saw represented in at least one of the student's essays, I created a topic category. I further reviewed the essays within the team, using open coding to generate as many topics as were necessary to include all of the ideas that were represented in the essays. I then reviewed the essay excerpt that was used to derive each of these topics to determine if any of the ideas were related to one another and found that some of my original categories could be collapsed.

Using these topics as a starting point, I then examined the essays from the other focal team. Although many of the same ideas were represented in the essays of the other

team's members, it was not my intention to create a comprehensive guide from which one might "grade" the essays. Instead, I was trying to determine how the group's discussion was reflected in each individual's essay. Therefore, I did not limit myself to the topics derived from the first team's essays, nor did I hold this second team accountable for all of the topics represented by the first team.

Linking the essays with the transcripts. Finally, I returned to the transcripts in search of each of the topics derived from the essays and located each one within the corresponding team's discussion transcript. No topic was found to be missing from the team's talk. That is, all of the topics that were identified through the essays were found to be a part of the teams' discussions. For each segment of the transcript that aligned with one of these topics, I reviewed each comment in terms of the listening indicators derived from the interviews and the notes I had made of each participant's nonverbal actions. In some cases, I returned to the synchronized recordings to clarify the timing of certain actions recorded in my notes.

Trustworthiness

So that others will trust that my findings were both valid and reliable, it was important to consider how to establish trustworthiness. Following the guidelines set forth by Lincoln and Guba (1985), I sought to establish credibility, transferability, dependability, and confirmability in the following ways. First, I established *credibility* through prolonged engagement. As I attended class throughout the semester, even on days when students were not working on team projects, I became very familiar with the class setting, the instructor's expectations, and the way in which those expectations were

conveyed to students. I facilitated *transferability* by providing thick descriptions so that readers may determine whether my context is sufficiently similar to their own and judge for themselves whether the findings transfer to those contexts. As there can be no *credibility* without *dependability,* "demonstration of the former is sufficient to establish the latter (Lincoln and Guba, 1985, p. 316). The use of multiple data sources (i.e., field notes, surveys, synchronized audio and video recordings, team activity sheets, individually written essays and journal entries, interviews) allowed for the triangulation of data, providing *confirmability.* Finally, peer debriefings with those who are familiar and well-versed in discourse analysis and learning theories further established the *credibility* and *confirmability* of my findings. These peer debriefings occurred regularly throughout the process of data collection and analysis. My colleagues served to check my emerging themes, coding, and conclusions as they questioned my process and made suggestions that prompted further analysis and consideration of additional interpretations of the data. Furthermore, once the data collection process was complete, I met with someone acting as a peer debriefer at least weekly and discussed my analysis progress and my developing understanding of the data.

Chapter 4

Results

Analysis of the data revealed that even though students were more likely to credit others with listening when their comments to the conversation were appropriate, listening was often indicated through both verbal responses and nonverbal actions. Groups differed to the degree that verbal contributions were offered, which meant that individuals in some teams had less to which they could listen and ultimately respond. Regardless of the level at which students engaged in the discussion, the ideas individuals chose to include in their own essays reflected those ideas that had been discussed by the groups prior to the writing task indicating that the group's discussion influenced the individual's performance on a later assignment. Furthermore, listening indicators appeared to be displayed during those times when the team had been discussing ideas that were later included in the individual essays and tended to be either inconsistently present or missing altogether when the group discussed ideas that were not represented in the essays.

In this chapter, I start by providing a report of the process I followed for identifying the teams on which I focused all subsequent analyses, including my analytic approach and descriptions of each team that includes supporting evidence for my final choices. Next, I describe in detail the activity that teams were given to complete, along with an explanation of why I chose to use the discussion that occurred around this activity as the center of my analysis. Next, I report what the interviews revealed about what students perceived to be indicators of listening. Following that, I recount what an analysis of the video/audio recordings showed regarding which listening indicators are

actually enacted during the discussion. I then present evidence that participating in a small group discussion has an effect on the individuals' performance. The chapter concludes with a comparison of the small groups in terms of their listening processes and individual outcomes.

Focal Teams

The number of teams for observational focus was initially narrowed to six based on the level of consent individuals within the team granted. Of the 13 teams in the class, three teams had every individual team member grant me access to each of the five data gathering items (i.e., including words in a written transcript, analysis of actions on the video, survey responses, team projects, and individual assignments/final grades) on the initial consent form. Additionally, three more teams had the majority of members who consented to everything, with one or two team members consenting to everything except for the video analysis or the final grade. Selected based on their high levels of consent, these six teams were observed throughout the first two instructional units for how they interacted with one another as well as for how they appeared to engage in the class (e.g., attendance, verbal contributions during whole class discussion).

As I had collected consent forms by the end of Unit 1, all three video cameras were turned on throughout Unit 2 in an attempt to record discretely each of these six teams from various viewpoints throughout the classroom in order to identify possible technological difficulties. Finally, results from the CAS survey, a measure of students' self-perceptions of their ability to communicate with others, were used to help identify which groups would serve as the final focal groups for study throughout the remainder of

the course. At the end of Unit 2, I identified three teams for further study and potential one-on-one interviews at a later time. I will refer to these teams simply as Team A, Team B, and Team C. All student names are pseudonyms.

Team A. Based on my initial observations, I expected that Team A would be a high functioning team, one whose team members would engage in productive group discussions and interact with one another in effective ways. Throughout Units 1 and 2, team members were present every day. I also noted that from the onset of Unit 2, team members sat together on a daily basis, even when there was no team activity scheduled for that day. Furthermore, all team members appeared to be engaged during class, either by taking notes during the lecture, voluntarily contributing during whole class discussion, or participating in group discussions on team project days. From my viewpoint, there appeared to be no one person in the group dominating the discussion, nor did it appear as though one person was always taking the lead in completing the assigned team tasks. There also did not appear to be any one person who hindered the team with distracting, off-task behavior. Individual interviews with five of the six team members later verified this observation, as indicated in the following excerpts:

> Felicia: *Matthew doesn't participate as much, but you can tell when he tries to. But the five of us really bounce off each other…*
>
> Deborah: *Everyone kind of holds themselves accountable. There's no, like, I feel if somebody had not done the reading or had not told us they were not going to be there then that would give you a chance to have, like a leader, 'cause it'd be like, "who's going to tell them that they need to be there and give us their information," but since everybody does that on their own, everybody seems to be equal.*
>
> Kaitlyn: *I don't think it changes that much. I feel like for the most part, we're really on task…we all collaborate...*

Stephen: *Yeah, well, I think it's a real weird group because everybody contributes and we don't, I don't feel like we really have, you know, a designated leader or anything. I mean, at the end of class we divide up and talk about who's going to do what and we actually prepare. So we're ready to talk about it at the next class. It's pretty unusual.*

Jackie: *I think we're pretty balanced.*

According to the CAS survey, total scores for this team ranged from 138-162, with a range of mean item scores 4.60 – 5.60 on a 7-point scale (1 = never true of me; 7 = always true of me).

It is also worth noting that technically, this team was in a prime location for videotaping. The camera could be set at a distance of approximately eight to ten feet away from the group, with no other teams or physical obstacles between the team and the camera. Using the zoom feature, I was able to focus in on this team in an unobtrusive manner. From such a distance, I was able not only to protect the confidentiality of those students who consented, but also mitigate the potential that the recording equipment might influence student behavior during team discussions.

Team B. Based on my observations throughout the first two instructional units, I expected Team B to provide an interesting contrast to Team A in that team members would have positive interactions, but various social distractions might result in unfocused conversations that could negatively impact learning. Although all team members were generally present during much of the team activities completed in Units 1 and 2, one team member habitually arrived late to class and left early, and other team members would occasionally arrive late or leave early as well. The team member with the most inconsistent attendance was particularly sociable, and I often observed him talking to the

woman sitting next to him in what appeared to be a flirtatious manner, with frequent smiling and soft laughter. From my observational viewpoint during team activities, most team members appeared to engage in the tasks, though some appeared to be more vocal than others. Although at least three team members appeared to be confident enough to speak out during whole class discussions, students in Team B did not appear to be engaged in the class to the same degree as Team A. During the teacher's lecture for Unit 2, for example, I noted that two team members had their heads down completely, one of whom appeared to be asleep during most of the class.

Unfortunately, only three team members completed the CAS survey, so the data for this team are incomplete. For those who completed the survey, total scores ranged from 151-177 (mean item scores 5.03-5.90). From an observational standpoint, Marie, the team member with the lowest total score (151), appeared to be one of the least vocal team members, whereas Delia, the individual with the highest total score (177), was quite vocal, often leading the group discussion, restating others' comments, and keeping the team focused on the task at-hand. She was also quite talkative during whole class discussions, asking questions, answering teacher questions, and sharing team decisions. These observations were later validated during one-on-one interviews with individual members of this team:

> Marie: *Delia, she kind of keeps the whole group going sometimes…actually she always turns everything in and she seems kind of [like] the group leader.*
>
> Delia: *I definitely try to, like, whenever people haven't spoken up in a while, if they're there, I'll be, like, "Okay, so what are your thoughts on that? How do you feel about this? You haven't really said much in a while. Anything to add?" I think part of it too is that she [Marie] was just a little bit quieter…she just seems a little bit more soft-spoken than myself or Shelly.*

> Camilo: *I think there's, like, - well, like, three or four of us that, like, put a really good effort into it. So it's really hard to establish that leader role.…There's some that are not as much into it. Every once in a while, they put their input. If they catch something, maybe it's a little thing that they feel might be important, others are kind of just - not that, they're kind of just there - they do have something to say, but I feel that they kind of - it's not that they don't know what they're talking about. They seem very shy because like I said, three or four of us have very strong opinions.*

In further contrast to Team A, members of Team B did not regularly sit together on days when no team activity was scheduled, leading me to wonder if they would be as cohesive in their interactions as Team A might be. Even on those days when team activities were scheduled, some team members would often have to change seats once class had started in order to sit together for the team task, making it somewhat challenging to set up the video camera properly prior to the start of class. Although this presented some technological challenges, the team generally settled in or around the same area, towards the back corner of the room. Once again, I was able to station the video camera at such a distance from the group that I was able to obscure the camera's focus on this team from the instructor as well as the students, helping to ensure confidentiality and preserving authentic group interactions.

Team C. Team C provided further contrasts to Team A as well as displaying different interactive behaviors from Team B. From the start of the first instructional unit, one particular individual from this team, Kevin, caught my attention as someone who readily spoke up during class. When I watched his team interact with one another, however, the majority of team members appeared to be fairly quiet, and the team as a whole appeared to interact with one another only minimally. Although the classroom was, admittedly, set up to facilitate lectures rather than team discussions, most teams

were seen to split themselves in half, with those sitting in the front row turning their chairs around in order to face those in the row behind and above the front row. During the first team activity, however, I observed this team rarely face one another, with those in the front row working diligently to complete the task activity while those in the back row were quite literally left behind. One team member, Rachel, did eventually swivel her seat around to face those behind her, but the other two students in the front did not turn around to engage with those team members sitting behind them. From my observational vantage point, it appeared as though Daniel was focused on filling out the team activity sheet while Darcie was intently trying to copy down what was on that team activity sheet into her own personal notes. It is also worth noting that members of Team C rarely sat all together until it was time to work on an assigned team activity.

Although one team member did not complete the CAS survey, total scores for the other five team members ranged from 138-184 (mean item scores ranging from 4.60 to 6.13), the largest range of any of the three focal teams. Furthermore, Darcie, with a total score of 184, had the highest score on the scale than any of the three teams, and yet was seen to speak very little during team discussions, and rarely, if ever, during whole class discussions. Rather, she was often seen on her laptop, viewing websites that were not class related, and seemed to be focused on completing the task and getting the information transferred into her notes rather than making sense of the information that was being presented, or contributing in any meaningful way to the group.

Once again, my conclusions were supported during the one-on-one interviews with individuals from Team C:

> Rachel: *Sometimes, we're in a group and someone's on the computer…and they'll just pop up and be like, "Oh, what was the answer for that, for this question and that question? Okay, Thanks." Okay. Then they're not really contributing and putting in what they got...*
>
> Kevin: *I'd say I kind of guide us, maybe. And then, everyone usually picks up and takes a part of it. I'm not sure when I'm not there, but if somebody's not there, usually it still feels pretty similar. Depending on if the other two that I feel are really helpful are there, then things might be a little one sided sometimes.*
>
> Catherine: *There is some times we listen to one person frequently more than others. He was like the leader…*
>
> Daniel: *I think Tatyana wrote most of the time. I mean, she wrote, and would, like, ask the questions to us because she had the paper. We'd all answer as we went along. I don't feel like I talked as much. I just don't talk as much in class.*

By the end of Unit 2, I had made a note to myself that this team might provide good examples of non-listening behaviors, and subsequently decided that they should serve as the third focal group. As this team sat towards the back of the room, there were some technological challenges with acquiring a camera angle that would allow for analysis of nonverbal expressions (e.g., facial expressions) of a majority of group members on any given day. As one team member did not grant permission for video analysis, however, and this team member always sat in the back row, I decided that the ability to see those in the front row if they should turn around to face the back row was adequate when combined with observational field notes of the team members during the team discussions. Furthermore, I was able to place again the camera in such a way as to conceal its focal point, and feel confident that the confidentiality of the participants was maintained, as was the authentic context for this team's discussions.

Focal Activity

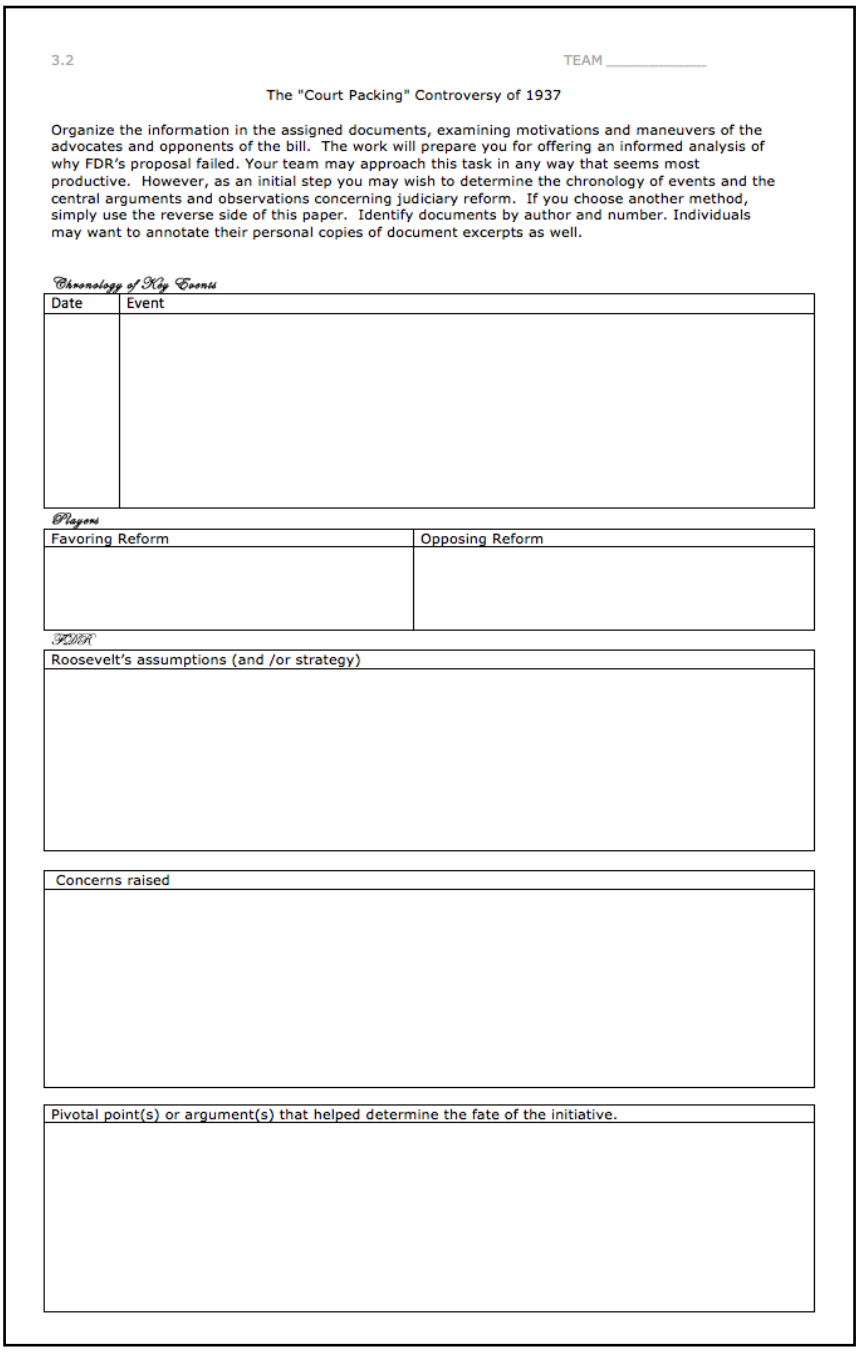
Although any of the team activities completed on Days 3, 4, or 5 of each instructional unit would have provided an opportunity to study a small group discussion that was learning focused, in order to find evidence that the group's discussion had influenced the individual, I decided to take a micro-analytical approach and focus on a single activity. There are several reasons why this choice turned out to be advantageous, particularly in terms of linking group processes to individual outcomes. Specifically, the activity I chose was one that had an individual outcome directly linked to it in terms of its content. Furthermore, I found evidence that students in at least one team found this activity to be particularly memorable because it revealed diverse student opinions, indicating that they would have been listening to one another during at least part of the discussion. In this next section, I first present a detailed description of this focal activity, followed by evidence that further supports and explains my decision.

The team activity on which I decided to focus, then, took place over the course of two class periods during days four and five of the third instructional unit, which occurred just past the semester's midpoint. Students spent approximately 73 minutes total working on completing this activity over the course of these two days. This activity focused on the "Court Packing" Controversy of 1937, a time when President Franklin D. Roosevelt attempted to add more justices to the Supreme Court in order to garner more favorable rulings towards his New Deal policies. Forty different documents, approximately 20 pages total in length and including a variety of primary texts (e.g., memoirs, diary entries, personal correspondence, and journal articles from the time period), were posted on the

class website for students to read prior to class. As was the routine for these team discussions, the instructor provided teams with an activity sheet (shown in Figure 4.1) that served as a possible framework to help students in organizing the information presented in the many documents. Directions for this team activity were as follows:

> *Organize the information in the assigned documents, examining motivations and maneuvers of the advocates and opponents of the bill. The work will prepare you for offering an informed analysis of why FDR's proposal failed. Your team may approach this task in any way that seems most productive. However, as an initial step you may wish to determine the chronology of events and the central arguments and observations concerning judiciary reform. If you choose another method, simply use the reverse side of this paper. Identify documents by author and number. Individuals may want to annotate their personal copies of document excerpts as well.*

I observed and took field notes of students' overt behaviors (e.g., students' apparent engagement with the documents, interactions with one another) as they worked in teams to complete this activity and, based on the differences I had noted between teams, decided that further analysis of the video and audio recordings might offer some insights in terms of student listening. For example, on the first day of the team activity, I was acutely aware that although half of the students were absent from Team C, the three students who were present seemed engaged more with their documents than with one another (e.g., as noted in my field notes *"very little talking – everyone looking at docs"*). In contrast, those in Team A appeared to be highly engaged with one another, with references throughout my field notes about four of the five team members who were present that day talking throughout the duration of the activity. Thus, even during my initial data collecting efforts, I suspected that team discussions on this day might provide interesting points of comparison in terms of listening and learning in the groups.



3.2 TEAM _____

The "Court Packing" Controversy of 1937

Organize the information in the assigned documents, examining motivations and maneuvers of the advocates and opponents of the bill. The work will prepare you for offering an informed analysis of why FDR's proposal failed. Your team may approach this task in any way that seems most productive. However, as an initial step you may wish to determine the chronology of events and the central arguments and observations concerning judiciary reform. If you choose another method, simply use the reverse side of this paper. Identify documents by author and number. Individuals may want to annotate their personal copies of document excerpts as well.

Chronology of Key Events

Date	Event

Players

Favoring Reform	Opposing Reform

FDR

Roosevelt's assumptions (and /or strategy)

Concerns raised

Pivotal point(s) or argument(s) that helped determine the fate of the initiative.

Figure 4.1. *Team Activity Sheet*

During the individual interviews, I asked students from Team C about this particular team activity, in the hopes that they might be able to provide some insights into

what they may have been thinking or feeling as they quietly sat beside one another. All three students were able to remember the day, and commented about it either on their own accord (Rachel) or in response to my specific question (Catherine and Daniel):

> Rachel: *One time, it was just me and two other people in our group and we were very, just, "So, what do you have to say about this?" It was a little hard to get the conversation going.*
>
> Catherine: *The people that were here for the first day – I think this was a two-day thing – were the quiet ones…*
>
> Daniel: *There were only like, three people that day. And we were just trying to go over it. And I think most of us had the same line of thought…*

What is important to note is how Catherine and Daniel explain away the silence as being due to the quiet and like-minded nature of the individuals who happened to be present that day. Such an explanation might seem logical and dependable, if it were not for Marie (Team B) who also mentioned another day on which three of six members of Team B had been absent. Although Marie, herself, was often less vocal than other team members in her group, and thus might have experienced some of the same lulls in conversation that Team C had displayed, she instead described feeling the need to talk even more than she might have otherwise:

> Marie: *There was only, I think three of us that day, so it's kind of – we all really had to all contribute. So…*
>
> Interviewer: *So there was, uh, more accountability in that?*
>
> Marie: *Yes. So…*
>
> Interviewer: *You all had to be on your game?*
>
> Marie: *Yes. We had to kind of make up for everyone that wasn't there. I mean – I read, I watched the videos, and I think I read two of the articles – so that was fine.*

Interviewer: *So you had a lot of information to share.*

Marie: *Yes. They all did a good amount of work too, so…*

Interviewer: *Did you know that there were going to be people gone that day? Or was it, it was just…*

Marie: *No. I mean we don't ever know when they're going to be gone but… [Laughter]*

It would seem, then, that fewer students does not necessarily lead to less talk in a group, but could instead lead to even ***more*** talk by each of the individuals who are actually present.

Once the semester had ended, I was granted access to students' journal entries and became further convinced that there would likely be some insights in terms of listening to be gained from a more systematic analysis of this team activity. The instructor had, as a regular expectation of the course, asked students to keep a journal. Before and after each class, students were to respond, in a couple of sentences, to the prompts that she posted online. The prompt for students' "after class" journal response on this particular day was the following: *Which of your teammates' comments on the Court controversy you discussed today did you find most surprising? Explain.* Upon reading the responses of those students who were present in Team A, an interesting pattern emerged:

Deborah: *Kaitlyn mentioned in our discussion that we are probably only getting one side of the story. She said that most of the documents are from opposers so it seems that the majority of the people were against FDR's plan but this in fact may not be true. She made me ponder whether or not my opinion is a result of the documents chosen.*

Felicia: *I found Kaitlyn's comment about her liking FDR and agreeing with him and the court bill most shocking. She did not like much of the reading due to how negative it was. To me that was surprising because I think FDRs [sic] approach was very wrong and didn't agree with it at all.*

Jackie: *To my surprise, a few team members were still fans of the president…*

Kaitlyn: *I was very surprised by the criticism towards FDR. I have always regarded him highly, yet after speaking with my group, I can see where he has his flaws. Although I do feel like our opinions of him are somewhat biased based on our media centered culture and presentism.*

Matthew: *I feel like my group had a fairly general agreeing interest in those who were strongly opposed to FDR. I was not exactly surprised by any of their comments.*

Note how Deborah and Felicia both referenced Kaitlyn specifically in their journal responses, indicating that they were, at least at one point during the conversation, listening to Kaitlyn. Although Jackie's entry, *"a few team members were still fans,"* was somewhat more vague, and maybe even inaccurate (as it would appear that there was only one team member, Kaitlyn, who was still in FDR's corner), that she also mentioned the discrepancy indicates that she was at least aware of the debate. Kaitlyn's comment acknowledges that she heard her team member's counterarguments and therefore would suggest that she, too, had been listening to her fellow team members as they worked to complete this activity. Matthew, on the other hand, seemed to be unaware that there was any such disagreement. Based on my general observations, Matthew appeared to be mostly disengaged in the team's discussion that day, seldom speaking up and sometimes sitting with his eyes closed. With such similarities between the responses of the team members who did appear engaged, along with the disconnect presented by the team member who appeared to be less engaged, the day's discussion looked worthy of further analysis.

One last factor that influenced my decision to focus on this particular team activity was the individual essay students wrote immediately upon its completion. For

this essay, students were to identify what they felt to be the top two reasons FDR's fight to reform the judiciary system had failed and to justify their choices. Having such an individually-produced outcome measure of the individual's understanding that aligned with a specific team discussion was not only unusual, but helpful in terms of trying to establish how indicators of listening were associated with measures of learning. As the instructor had designed this course around the tenets of Team-based Learning, much of the work they produced was *as* a group, with individual understanding being evaluated primarily through the midterm and final exams. Consequently, two principal sources of individually-produced learning measures were influenced by *multiple* team discussions. Although students did take individual quizzes during the first day of each instructional unit, these were intended to encourage students' preparation for further exploration of historical concepts. Thus, the individual quiz occurred *prior* to the team discussion, and could not have reflected how listening to others had influenced one's learning. I decided, therefore, that the in-class essay students wrote at the end of Unit 3, along with the team discussions that occurred during the team activity immediately prior to this essay, provided the best opportunity for linking individual learning to listening in a group, and more fine-grained analysis of the audio and video recordings for this team activity was warranted.

Perceived Indicators of Listening

As indicated by the individual interviews, students identified both verbal responses and nonverbal actions as indictors of listening.

Verbal contributions as an indication of listening. Across teams, students consistently stated in their one-on-one interviews with me that being able to make a verbal contribution that appropriately built on what had been said was an indication of listening. For example, Marie (Team B) stated, *"…they make a response to me that I know they're listening."* Some students even felt that these verbal contributions were a stronger indicator of whether or not others were listening to them than nonverbal actions, as reflected in the following interview excerpts:

> Deborah (Team A): *I know that they're listening based on what they say, not really their body language or anything, 'cause I'm not really paying attention to that.*
>
> Rachel (Team C): *Obviously, you can look at the person for the whole time and not take in anything they're saying. People can do that. But if you're adding on to a conversation, or asking questions, yes, you can tell who's listening, who's not.*

It is worth noting that such remarks refer to how others would indicate that they had been listening to the individual being questioned, rather than how the individual indicates she is listening to other group members. Furthermore, Deborah's comment does not state that others might <u>*not*</u> provide nonverbal indicators, but rather that she only <u>*notices*</u> their verbal comments as an indication of their listening. One might also consider whether her statement implies that she, herself, does not consciously provide her own nonverbal indicators for others who are speaking. Rachel's comment is interesting because it acknowledges that someone might display nonverbal indicators of listening, but still not be cognitively attending to the speaker's contribution to the conversation – akin to the action of *tuning out* identified by Do and Schallert (2004).

In the same way as appropriate verbal contributions could serve as an indicator of listening, inappropriate verbal contributions could serve as an indicator that someone had not been listening, as Delia (Team B) noted in her interview:

> Delia: *You know that their head is elsewhere.*
>
> Interviewer: *You can kind of tell that because they aren't contributing to the group or what they say isn't…*
>
> Delia: *Right. It isn't always spot-on or, if they say anything at all.*
>
> Interviewer: *– that's relevant maybe.*
>
> Delia: *Yes.*

Felicia (Team A) also commented on how inappropriate comments would serve as an indication that an individual had not been listening to the group discussion, providing a specific example of one such exchange in her group:

> Felicia: *...we were going through and talking about them [the quiz questions] and on one of them we all agreed that that was the answer, and we're moving on to the next, and he's still trying to give us reasons as to why that was the answer.*
>
> Interviewer: *So it's like he's not really engaged in the conversation. He's putting in his two-cents worth, but wasn't really listening to the conversation?*
>
> Felicia: *Yeah. We were already on the second, no third question, and he's like, "Oh, we're not talking about that one anymore?"*

Other individuals noted that making no verbal contribution to the conversation was also a sign that an individual was not listening to the ongoing discussion, as when Jackie (Team A) noted, "*Well…they don't have anything to say after you're done, you know? They don't, they're just like, 'O. K. Whatever.'"* In contrast, however, Felicia (also from Team A), noted that one particular team member's silence was not necessarily an accurate indicator of the extent to which that individual had been listening:

Felicia: *I'll notice sometimes with Stephen, I'll be like, "What do you think?" because I'll feel like he's not listening, but he could add something to the conversation, but because he doesn't interact at all I'll be like, "Are you not listening? Are you not paying attention?"*

Interviewer: *And when you do that, is he usually able to chime in and add something?*

Felicia: *Yeah. He's appropriate. So it's like, "Yeah, he was listening. He just was maybe passively listening."*

In her description, Felicia identified an interesting notion, that of being a *passive* listener. If passive listeners are silent, but able to contribute appropriately to the conversation when prompted, then it is again a verbal contribution that makes it possible to determine whether the individual has been cognitively engaged (i.e., listening). Conversely, one might describe an *active* listener as someone who offers verbal contributions of his or her own accord, without encouragement or direct prompting by a fellow group member. Thus, although silence might be interpreted as an indicator that someone was not listening, it may not be an accurate one.

Through further analysis of the interviews, I discerned that although most students concurred with the notion that appropriate verbal responses were an indication of whether or not someone had been listening, they offered a variety of response types that might serve as "appropriate." For example, Deborah (Team A) noted that when another group member *summarized* what she had said, she knew the person had been listening to her, as she explained, *"...when they're listening to me, they will kind of do what we were just talking about – they will just summarize and be, like, 'Oh, well, don't you just kind of mean they said this?'"* Delia (Team B) not only mentioned that a summarizing statement

was an indicator of listening, but also that she would deliberately try to summarize what others had said in order to let them know that she had been listening to them:

> *A lot of the times, we'll actually think very similarly on things, and other times we just want to just sort of show that somebody is listening, I feel like at least I try to do this – and I feel like other people do it, too – is summarize what they've just said. So, like, they were talking about the Cold War or something. They were saying how that it did this, that, and the other. So I'm, like, "Okay. So you think it did this? It also did this, that, and the other. Is that kind of where you're getting at?" And they'd be, like, "Yes," or "No," and you'd figure it out from there.*

Based on Delia's comment, one might deduce that a summarizing statement can serve not only as an indication of listening but also as a strategy for checking understanding. As these teams were engaged in the co-construction of knowledge, such a discourse move would also likely have helped facilitate conversational coherence, a characteristic of discourse in high-functioning teams (Barron, 2003).

Although properly summarizing what was has already been said could serve as a listening indicator, being able to <u>*respond to*</u> what was said appropriately was also noted as an indicator of listening. Daniel (Team C) for example, noted that *"general responsiveness"* was important in terms of determining whether other group members were listening to him, and then specified, "*Whenever you finish a sentence, do they answer you, stuff like that,"* implying that one might have asked question (*"…do they <u>answer</u> you"*) that necessitated a near instantaneous reply (*"<u>whenever you finish</u> a sentence…"*). Also from Team C, Rachel noted responsiveness to her specific questions as an indicator of whether or not her team members had been listening to her:

> *Sometimes some people in my group will say something. They'll be on their phones or something, not paying attention, and they'll just pop up and say something that had nothing to do with our conversation, like, "What, what?" Whereas, other people in the group who I ask, or who I just like, ask in general*

> *everybody in the group, I ask a question. Somebody* [who has been listening] *will bring it up, and they'll really go deep and explain everything for me.*

Therefore, when a group member answered a direct question one may have initially put forward to the entire group, one could determine that at least the individual responding to the query had been listening. Sometimes, however, it was not responsiveness to the question posed, but rather *asking a question* as a response in itself that might indicate a group member had been listening to what one had to share, as Jackie (Team A) described:

> *I guess when they come back with questions, like when I'm done talking. Definitely lets me know, "O.K. we're all on the same page." It's like, "O.K. we're getting somewhere." Um, when someone just kind of talks and that's kind of like, it, you can tell, "O.K. that went in one ear and out the other."*

As with Delia's comment regarding summarizing statements above, Jackie's response here suggests that questioning can serve as a way to check understanding, a discourse move I would argue that also contributes to the development of conversational coherence. Other individuals echoed this sentiment that asking questions was not only an indicator of listening, but also a way to further develop the conversation:

> Stephen (Team A): *They respond by either building on what you've said, or they ask you more about it, or, it's usually just the context of conversation.*

> Rachel (Team C): *...if they add something in, like, they add to your conversation or question you, or just bring up new idea then, yes. That's conversation [unintelligible]. You can tell that they're listening.*

In *"asking more about it,"* one could reasonably expect that the individual was not seeking clarification because he or she had not been listening, but that perhaps the individual sought further information in order to understand better the ideas being shared and discussed.

Comments such as the above also allude to yet another type of verbal response that might be considered an indicator of listening, one that *elaborates* on what has been said. Such elaboration might come simply in terms of *"add[ing] to your conversation"* but might also provide further details that support or refute someone's claims. As the team assignments were often designed to help students come to a consensus about something, and then support their decision with evidence using historical artifacts, much of the team discussions focused on understanding the information – and biases – presented in various historical documents. Kaitlyn (Team A) explicitly linked such verbal contributions with listening when she stated:

> *…when we're talking, people will respond to what we had to say. So I know they had to be listening to be able to come up with a response. And a lot of time, they help find more evidence to support it. Or they find evidence to disprove it. So, that's normally how I know they are listening.*

Finding evidence to support or refute a claim presented by someone else would certainly indicate that someone had listened to that person present his or her argument, as would being able to present a different opinion that may or may not be based on evidence. Camilo (Team B) noted that such disagreements could occur only when the individual with a dissenting opinion had been listening:

> *I see some of them that are, like, you know, they have an opinion already. Once they hear something, they're ready just to jump in and say, "Okay. Wait. I want to stop you there, and I want to tell you how I feel about that up to this point."*

It is also important to note that disagreements might arise when one realizes that clarification is needed, as Jackie (Team A) commented:

> *I think when we talk about the articles in class, normally what happens is we go over the basic argument of the article and then we, as a group, kind of, "O.K., what does that mean?" you know. And it's the person's responsibility that read*

the article to kind of guide the group and say, "Well, no, cause then this happens and that can't be where they're going."

In such an instance, it would appear as though the need for clarification is prompted by a lack of understanding rather than simple inattention or poor listening. I would argue that, rather than an indication of listening, such a comment would be a natural, and perhaps frequent, one that occurs throughout a collaborative discussion between individuals engaged in the co-construction of knowledge.

Of all the types of appropriate verbal responses individuals identified, the one that might seem most tenuous as an indicator of listening would be the response I have termed *acknowledgement*. This category includes basic comments such as "I agree" or "That's interesting." Although a couple of students indicated that such comments were acceptable indicators of listening, those who did usually included additional remarks that could be interpreted as a stronger indicator, as in this exchange with Catherine:

Interviewer: *What were some of the things they did that let you know or think that they were paying attention to what you had to say?*

Catherine: *Just little stuff. Like they could say, "Oh, I agree," or "You brought a good point." Or they could continue on to what you are saying.*

Interviewer: *How did you let other people know that you were listening to them?*

Catherine: *Same thing. I would be like, "My article said that too."*

Although Catherine stated that she accepted *"I agree"* as a verbal indicator that someone had been listening, she went on to say that they *"could continue on to what you are saying."* One might argue that simply stating "I agree" requires little cognitive attention to the content of the speaker's comments and could be one way that a team member could feign listening when he or she might actually be tuning out. It is unlikely, however, that

one could *"continue on"* to what someone has said without adequately listening to the comment. Thus, when I was coding the transcripts, it was with caution that I accepted responses classified as "acknowledgement" as reliable indicators of listening. Instead, I considered it as a temporary marker in the conversation, a verbal interjection if you will, that may have indicated the individual had heard the speaker's message and was either waiting for that person to continue or was preparing to add additional commentary. Therefore, consideration of subsequent comments was necessary in order to conclude whether the individual had, indeed, been listening.

Nonverbal actions as an indication of listening. Students' perceptions of nonverbal actions as indicators of listening were somewhat more mixed than the consensus indicated regarding appropriate verbal contributions. Some students clearly felt that eye contact was an important signal to the speaker that they were listening, as the following individuals stated in their interviews:

> Kaitlyn (Team A): *...this is just me, I try to look at people in the eye. So, if someone is looking at me in the eyes, I know they're paying attention to what I'm saying.*
>
> Kevin (Team C): *I can't really think of a time when I'd be looking away when they'd be talking unless I'm trying to read and catch up on something. But for the most part, yeah, I'd be looking them in the eye, letting them know with body language that, "Yeah. I'm listening."*
>
> Marie: (Team B): *Well, usually they're looking at me or they're not on their computer or sleeping…*

This last comment, by Marie, hints at an interesting component, and common distraction, in this class – the computer. As most of the course documents were posted on the class website, students seeking evidence to support or disprove an argument (which, as

previously noted by Kaitlyn, was part of an appropriate verbal response indicative of listening) might require looking at a website or offline resources rather than the speaker. Thus, it would seem that an expectation of eye contact would be contradictory to the task at hand. This line of reasoning seems to be supported by Deborah (Team A), who stated, *"I find that I'm usually looking down at my paper cause I'm trying to find what my notes are. So I don't notice if somebody's really looking at me or nodding or if they're on their phone or not."*

Although some students felt as though it was important for a listener to look the speaker in the eye, I would propose that such a behavior is more a sign of respect than a necessary precursor to cognitive engagement with what is being said, (i.e., listening). As Rachel (Team C) noted,*"…even if they're not looking at you directly in the eye and they're just looking down, you can tell that they're listening…if they add something in…"* Therefore, I posit that some students may not have made the distinction between having an <u>expectation</u> that listeners look at the speaker and the actual <u>need</u> for eye contact as part of the listening process as a possible explanation for students' differing views regarding nonverbal actions and listening.

Furthermore, some students admitted to using nonverbal actions as a way to mask their effectual non-listening, or tuning out, to a fellow group member. Within Team A, the team that I perceived to be the most cohesive, consistent, and equitably engaged during discussions, two team members confessed to sometimes providing a nonverbal indicator to imply they were listening even when they were not. As this excerpt from one interview illustrates, eye contact could be one such miscue:

Student (Team A): *I never really find another perspective from him/her. They're normally just restating…but that's OK. You know. Everyone else I try to really listen to what they have to say. He's/She's the only one that I think I sometimes tune out.*

Interviewer: *And it's hard to know from looking at someone when they're tuning out, right? You'll probably teach your students, just like I taught my students, that good listeners* look *at the speaker.*

Student (Team A): *Well, I normally look at him/her, but I'm just like, "O.K. O.K."*

With such inconsistencies regarding the use of nonverbal actions as indicators of listening, I started to ask students directly during the interviews about how one might differentiate between tuning out and listening. Felicia (Team A) offered the following insight:

Interviewer: *What about when you're listening to other people. How do you indicate to other people that you're listening? Cause tuning out and listening from an outside perspective can look a lot alike. Right?*

Felicia: *Haha! Yeah. I don't know. I guess I form an opinion and rebuttal with it. I join in. I notice I join in to the conversation a lot. I've been trying to pull back a little bit because I feel like I dominate too much so I try to pull back a little bit. But I don't want them to think that I'm not paying attention so I do like to add in my two cents, or even if I agree with them I'll "oh, I-remember-reading-that-too" type of comments just to kind of encourage it.*

Interviewer: *With a verbal recognition of "I know what you said"*

Felicia: *Yeah. Instead of like head-nods and stuff like that.*

Interviewer: *It's easy to do that isn't it?*

Felicia: *Exactly. You're just like "uh-huh."* [nodding head] *That's what I do when I'm <u>not</u> listening, you know? And you're just like, "Yeah, O.K." So I try to say something that shows that I am listening...*

Thus, based on the interviews, the degree to which these students perceived nonverbal actions as an accurate or acceptable indicator of listening varied. Whether

and/or how such actions actually aligned with other, more reliable verbal indicators is something that might be determined through an examination of the small group discussions, which I describe in the following section.

Indicators of Listening in Action

Although students were readily able to identify indicators of listening, the interviews only revealed what students *thought* they would accept as an indicator that a team member had listened to them and/or how they *thought* they would indicate that they were listening to their team members. What the interviews were unable to show, however, was whether such indicators were indeed present during group discussions. As there was a preponderance of evidence for using what one says for determining whether or not one has been listening to the conversation, I started with a transcript of the team's discussion before moving on to the video for insights into their use of nonverbal actions.

Verbal contributions differ across teams. When considering the transcripts of each team's discussions, it became apparent that the teams differed in the extent to which they could have offered these verbal indicators, as there were differing levels of verbal contributions to which one might respond.

Team A's robust contributions. Consider, for example, the following excerpt from the discussion that took place during Day 1 of Unit 3's activity in Team A:

> Deborah: *OK. "Hiding his true reasons"* [written on team activity sheet]. *Where was that one? If you look up "ventriloquist" I think that will show us the document that it was in.*
>
> Jackie: *Um...*[reading from document on laptop] *"...they would pick up six additional sycophants, judicial marionettes to speak the ventriloquism of the White House." Is that the note?*

Deborah: *Yeah. That's the one I'm talking about.*

Jackie: *O.K. That's document 15.* [Reading from document] *"…no mandate equal to rape the Supreme Court or tamper with the ... men and women of America who value these should exercise their constitutional right of petition and..." So…*

Deborah: *Right. So that part was just saying that he wanted them to be his puppets. So that's why I put it under he was hiding his true reasons.* [Reading from team sheet]*"Unwilling to compromise" What document was that?*

Kaitlyn: *There was a lot of them. Which one was towards the end?*

Felicia: *The one towards the end was, I think, the most compelling one which was* [crosstalk]. *No this one was the one - no, I'm not thinking 39. The one where...there's too many documents...Robinson would get the job.*

Jackie: *Ooh. Well in document 19 it says* [reading from document]*, "he continues to think his court bill's safe although the final margin might be a narrow one. He continues to fear that Robinson may compromise about consulting...Early in the week Senator..."*

Although only four of the six team members were involved in this part of the discussion (one student was absent and another student participated very little throughout class that day), it is possible to identify many of the different types of appropriate verbal responses students identified in the interviews within this brief exchange that lasted for just 112 seconds, or under two minutes. To recount, the different types of verbal responses students identified included statements that: summarized, asked a follow-up question, responded to a question, elaborated, provided evidence to support or refute a claim, provided an alternative opinion, or acknowledged what had been said.

We can see that Deborah's first comment, for example, begins with what one might have considered an acknowledgement of the previous comment(s), *"O.K."* before she re-introduces a concept that had been previously mentioned and noted on the team activity sheet. Thus, with her comment, *"Hiding his true reasons. Where was that one?"*

Deborah is able to launch her team members on a journey toward finding evidence to support one of their previous claims without completely ignoring what they had just been discussing. When she adds further details to her query regarding a document that supports the claim, she offers information that those who were listening could use to help locate the document: *"Where was that one? If you look up 'ventriloquist' I think that will show us the document that it was in."*

Jackie, who had been using her laptop's search feature to locate documents throughout the discussion, is the first to respond to the question, "*Um...*[reading from the document displayed on her laptop] *'...they would pick up six additional sycophants, judicial marionettes to speak the ventriloquism of the White House'..."* Notice that Jackie ends with a question of her own, *"Is that the note?"* which provides an opportunity for Deborah to verify her finding. Deborah's acknowledging reply, *"Yeah. That's the one I'm talking about,"* not only indicates she has heard Jackie's comment, but also encourages Jackie to continue. Thus, Jackie elaborates with more evidence, and continues reading aloud from the document, *"O.K. That's document 15.* [Reading from document] *'...no mandate equal to rape the Supreme Court or tamper with the ... men and women of America who value these should exercise their constitutional right of petition and...' So..."*

Deborah then acknowledges, and concisely summarizes the evidence that Jackie has just presented by saying, *"Right. So that part was just saying that he wanted them to be his puppets."* At this point, she seems to signal that this topic has reached a satisfactory conclusion and elaborates with, "*So that's why I put it under he was hiding*

his true reasons," before presenting a new topic for the team to discuss, *"*[reading from team sheet] *'Unwilling to compromise.' What document was that?"*

As Kaitlyn jumps into the conversation here, her response, *"There was a lot of them. Which one was towards the end?"* may not have provided a specific answer. However, it is appropriate enough in response to the question posed that Felicia picks up on her cue and tries to elaborate with more evidence by saying, *"The one towards the end was, I think, the most compelling one, which was* [crosstalk]. *No, this one was the one - no, I'm not thinking 39. The one where...there's too many documents...Robinson would get the job."* Although Felicia is unable to locate the document *"towards the end"* that Kaitlyn was referencing, it appears from her statement that Felicia heard Kaitlyn.

It is important to note that there was some crosstalk as Felicia spoke and, based on the fact that Jackie's response is not referencing an article towards the end but rather towards the middle (documents had been numbered one to 40), one might suspect that Jackie may not have heard Kaitlyn or Felicia, but that she had certainly heard Deborah's question, *"What document was that?"* as she responded, *"Ooh. Well, in document 19 it says…"*

It is also worth mentioning again, all of these comments took place during a time span of less than two minutes. As the preceding excerpt took place at minute 16:30, and the entire team's discussion time lasted 52 minutes (with over seven minutes just past the half-way point being led by the professor for a whole-class debriefing session), I decided to examine two other excerpts from the discussion, to determine whether these verbal indicators were as consistently present at other points in the discussion. As shown in

Table 4.1, an excerpt taken from the beginning of the discussion, these same four team members showed several discursive markers to indicate they were listening to one another, with Deborah seemingly finishing Felicia's sentence, *"They were riding his coattails, so they should have…"* by saying, *"…like, returned the favor."* Still, it is noteworthy that at two points during this 84-second exchange, team members interrupted one another twice: first, when Deborah interrupted Jackie and then again at the end when Felicia interrupted Kaitlyn. That Kaitlyn immediately restated, *"So, it was just, like, FDR's assumption…"* and resumed her summarizing comment as soon as possible by saying, *"…that he had such an overwhelming victory that of course they're going to support him,"* allowed her idea to be heard, even if it was initially unnoticed or discounted by at least one team member. This final statement also allows one to draw the conclusion that her previous simplistic acknowledgements (e.g., *"Right."*) were accurate indicators that she was, indeed, listening, as this final statement encapsulates the argument that her team members had been building. Furthermore, the topic of "FDR's assumptions" and the idea that *"they were riding his coattails"* resurface at various points much later in the team discussion, as team members continue to look for evidence to support, as opposed to re-establishing, the argument, further corroborating the conclusion that these team members had been listening to one another.

Table 4.1. *Early Comments from Team A's Discussion*[1] *Coded for Verbal Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Jackie: *So should we move on to another box?*	
Deborah: *Well, why don't we talk about how we would do it first. Um, I don't even know what the question is, so...*	response to question
Felicia: [leans over and points to team activity sheet] *Why FDR's proposal failed.*	response to (implied) question
Deborah: *O.K.*	acknowledges
Felicia: *There's so much in here talking about how it's so unconstitutional, his bill was. And then there's in there that he wasn't willing to change it at all.*	
Jackie: *Yeah, change. Well, in document two, I know it talked about how he didn't feel he needed to talk about evidence or anything else. That they should just follow what his decisions are. So I feel like that's a really big–*	acknowledges
Deborah: (interrupts) *And he's also...I don't really know if this has anything to do with anything, but, the fact that he just felt like they should be supporting him because he helped them get into office.*	
Kaitlyn: *Right. Right.*	acknowledges
Felicia: *Oh yeah. They were riding his coattails, so they should have…*	elaborates
Kaitlyn: *Right.*	acknowledges
Deborah: *…like returned the favor.*	
Felicia: *That's what they said.*	acknowledges
Kaitlyn: *In the very last. No - I think it has to do with, like, FDR - he just assuming*	summarizing
Felicia: [interrupts] *Do you want to just list some stuff on the back of the page, then we'll go back and find the pages and stuff. Just ideas? And then we can organize our ideas once we have them all written down.*	
Kaitlyn: *So, it was just, like, FDR's assumption that he had such an overwhelming victory that of course they're going to support him.*	

[1]includes talk from minute 4:29 to 5:53

Moving further into the discussion, I selected another portion of the transcript that was less than two minutes in length and coded comments according to the verbal indicators of listening previously identified. As Table 4.2 illustrates, most comments

included in this late exchange were shorter than those in the previous examples. However, it is clear that they are linked together, as team members are working together to locate a specific piece of evidence at Deborah's request. Even though there are several comments in this passage identified as simple acknowledgement-type responses, the connected nature of each one was recognizable. Thus, I felt more confident coding each statement as a listening indicator than if it had been a more obscure *"I agree"* type statement.

Table 4.2. *Late Comments from Team A's Discussion*[1] *Coded for Verbal Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Deborah: *Who is the head of the Judiciary Committee?*	
Felicia: *Was that Hughes?*	responds to question
Deborah: *No – in the Senate. The one that was expected to support FDR but he didn't.* [pause] *Do you know who I'm talking about?*	elaboration
Felicia: *That one, no.*	responds to question
Jackie: *Umm...Senator McCara…*	responds to question
Deborah: *I don't know if I'd remember his name.*	acknowledges
Kaitlyn: *That sounds familiar.*	acknowledges
Felicia: *Senate Judiciary Committee - is that what you said?*	asks a question
Deborah: *Yeah.*	acknowledges
Felicia: *It's document 29.*	provides evidence
Jackie: *Oh. OK* [searches on laptop]	acknowledges
Deborah: *That one came up earlier.*	acknowledges
Felicia: *Oh - did it...*	acknowledges
Deborah: [to Jackie] *Will you look up, like, "Judiciary?"*	
Jackie: *Yeah. This says...*[reading from laptop] "*following the adoption of this motion, there was a meeting of the Judiciary Committee, which appointed a sub-committee, headed by Senator [inaudible].*	responds to question
Deborah: *What document is that?*	questions
Jackie: *38. Oh, I'm sorry. But that's the subcommittee. Is that the same thing we're talking about?*	responds to question
Deborah: *I don't think that's what I'm thinking of. But I don't think I would necessarily remember the name if I just heard it.*	acknowledges
Jackie: *Let me just try...*	
Kaitlyn: *Senator Wheeler...*	responds to question
Deborah: *It may be Barkley.*	
Felicia: *That's the one who beat –*	elaborates
Deborah: *Oh, no, no, no, no.*	
Felicia: *– that took over Robinson…*	
Deborah: *Just give me a second. I'll find it.*	
Kaitlyn: *On document 13 it says, "Senator Wheeler led off the opposition from the committee hearing."*	elaborates with evidence
Deborah: *Yeah. Yeah. That's it.*	acknowledges

[1]includes talk from minute 35:28 to 37:03

What is unfortunately missing from all three of these examples is the presence of the two male team members. One team member was absent from class on this day, an unusual occurrence for him, and the other, though physically present, was noticeably disengaged and seemed to be having a difficult time staying awake for much of the conversation. As the instructor had designed this team activity to take place over the course of two class periods, it seemed natural – and necessary – to consider the team's discussion that took place on the second day, when all six team members were present and potentially more engaged. Although Deborah was silent throughout this exchange, she was present and aware of the ongoing discussion, as indicated by her nonverbal actions, which I will describe in more detail later. All other team members contributed verbally during the initial three minutes of the team discussion, and provide verbal indicators that they are listening to one another as the conversation evolves (Table 4.3).

Table 4.3. *Day 2 Comments from Team A's Discussion*[1] *Coded for Verbal Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Kaitlyn: *OK. See. I have a problem with this whole essay topic because I kind of, like, understa-, I agree with Roosevelt. I don't think he was the devil, 'cause he was elected into office because people liked his programs but then the Supreme Court was no longer supporting his programs which made people not like him.*	
Felicia: *But, it did ultimately fail. So, even though you like him, why do you think it failed?*	presents alternate opinion
Kaitlyn: *I know - but all these documents were saying, "Well, it's because he's a terrible person and an idiot."*	acknowledges; elaborates
Felicia: *But not really.*	alternate opinion
Kaitlyn: *...a tyrant.*	
Stephen. *No. No, no, no, I don't think so…*	alternate opinion
Jackie: *No, not all of it.*	alternate opinion
Stephen: *...because a lot of it is about circumstances of the situation. And about the opposition and what they did against it.*	elaborates
Kaitlyn: *All the documents are from the opposition's point of view.*	alternate opinion
Felicia: *Like, how the opposition waited on the bill, waited for the public to realize that they wouldn't like it - to turn on Roosevelt. They did that to make the bill fail. And how the opposition went to the newspapers and had headlines saying, Roosevelt's trying to be ty- something about tyranny. So that's all these things that the opposition did against Roosevelt that turned people against him.*	elaborates with evidence
Kaitlyn: *I don't like it.*	acknowledges
Jackie: *You don't like...?*	questions
Kaitlyn: *This is a biased set of documents right here.*	responds to question
Felicia [laughter]	acknowledges
Kaitlyn: *Biased. There's one person, whose name is Ilks or whatever, Ickes, and he slowly, but steadily...*	
Stephen: *They, yeah.*	acknowledges
Kaitlyn: *...turns away.*	
Stephen: *They all sort of...eventually...throw him to the dogs, but*	summarizes
Jackie: [interrupts] *Only because it failed.*	elaborates
Matthew: *I feel like the last one, I just wrote a report on today, um, document 40*	alternate opinion with evidence
Jackie: *on Eleanor Roosevelt*	elaborates
Matthew: *Yeah, Eleanor Roosevelt, where she basically says, like, although his mannerisms and how it happened was unsuccessful, he was essentially successful in, um, promoting some type of*	acknowledges
Jackie: *yeah - public interest*	elaborates
Felicia: *Um-hmm.*	acknowledges
Matthew: *Yeah, public interest and change that happened. So like, even though she was saying, you know, she wasn't saying that it worked, um, she was saying that, um, she wasn't saying the way it worked worked, but essentially, it worked in the end.*	acknowledges
Felicia: [reading from document] *"worthwhile, in spite of the defeat, aroused public interest."*	provides supporting evidence

[1]includes talk from minute 0:25 to 2:47

Although in sum, these excerpts represent only a fraction of the total time Team A spent engaged in a discussion across these two days (less than 6 minutes of approximately 74 minutes total), they are representative of the manner in which these team members worked together to co-construct a conversation that was cohesive and robust, employing many verbal indications that they were listening to one another via "appropriate verbal contributions." Indeed, I could have selected any minute from the transcript and found similar levels of listening indicators included. Therefore, when selecting these segments, I focused not on whether listening indicators were present, but rather on finding a point in the conversation that was rich and compact in terms of content and duration, and included as many different speakers as possible. Such consistency in the presence of listening indicators was not surprising, as I had initially selected this team for what appeared to be collective engagement, equal participation, and positive interactions. Thus, an analysis of these transcripts supported the initial hypothesis I had made based on my observations, that Team A would serve as an example of a high-functioning team whose team members would engage in productive group discussions. As the other teams were selected for different ways in which they appeared to interact with one another, one might expect that their transcripts would reveal different levels or ways in which group members verbally indicated to one another that they were listening.

Team C's limited and cryptic contributions. I turned next to Team C, as it was the team that appeared to be the most different from Team A, not only in terms of how they interacted with one another, but also the degree to which they interacted throughout

the team discussions. As a starting point, I searched the team's transcript from Day 1 for an excerpt that might reflect a topic that Team A had also discussed. As Team A spent some time, as shown in the first excerpt I presented above, looking for evidence that FDR was trying to make the Supreme Court Justices his puppets, which they eventually found in document 15, I reviewed Team C's transcript for a reference to this idea or document. Though the term "puppet" was not found anywhere in their discussion, document 15 was mentioned, so I focused my initial analysis of their discussion on the portion that started with document 15 and ended with document 19, similar to what Team A had included in that segment. As shown in Table 4.4, the conversation in Team C regarding the ideas supported in these documents is distinctly different from that of Team. (In order to facilitate the comparison, I have also included the previous excerpt for Team A.)

Table 4.4. *Excerpts from Team A[1] and Team C[2] Coded for Verbal Indicators of Listening*

Team A		**Team C**	
Type of Verbal Indicator	**Transcript**	**Type of Verbal Indicator**	**Transcript**
acknowledges	Deborah: OK. '*Hiding his true reasons*' - where was that one? If you look up ventriloquist, I think that will show us the document that it was in.		Daniel: 15, I put 'opposed' too. Catherine: Hmmm? Daniel: I put 'opposed.'
		acknowledges	
responds to question	Jackie: Um...[reading from doc] 'they would pick up 6 additional sycophants, judicial marionettes to speak the ventriloquism of the White House.' Is that the note?	acknowledges?	Rachel: Yeah. Catherine: 16 is 'for'…'cause the President pressed Congress for it.
acknowledges	Deborah: Yeah. That's the one I'm talking about.	elaborates	Daniel: Yeah. I think it's 'for' it because it talks about – like -, it shows what FDR was saying.
elaborates with more evidence	Jackie: OK. That's document 15. [reading from doc] 'There has been no mandate equal to rape the Supreme Court or tamper with the ... men and women of America who value these should exercise their constitutional right of petition' and... So	acknowledges?	Catherine: Yeah.
summarizes	Deborah: Right. So that part was just saying that he wanted them to be his puppets. So that's why I put it under he was '*hiding his true reasons.*' '*Unwilling to compromise*' - what document was that?	***30 seconds of silence (18:28 through 18:58) as team members refer to documents***	
			Catherine: 17 – say 'opposed?'
acknowledges	Kaitlyn: There was a lot of them. Which one was towards the end?		Rachel: Yeah. He…yeah….18? 'Opposed' right?
elaborates	Felicia: The one towards the end was, I think, the most compelling one which was [crosstalk]. No this one was the one - no, I'm not thinking 39. The one where...there's too many documents...Robinson would get the job.		Catherine: For 18? Rachel: Yeah. Catherine: Yeah. Rachel: 19 'for.' Daniel: Which one? 19?
provides evidence	Jackie: Ooh. Well in document 19 it says, 'he continues to think his court bill's safe although the final margin might be a narrow one. He continues to fear that Robinson may compromise about consulting...Early in the week Senator...'		Rachel: Um-hmmm. Daniel: Yeah.

[1]Team A's excerpt taken from minute 16:30 to 18:22
[2]Team C's excerpt taken from minute 17:47 to 19:44

Although Team C had three team members absent on this class day, Team A is not so different as it had only four speakers joining the conversation at this point. Yet, the differences between these two teams surpass the differences of any one individual contributor. As noted by the time lapse, Team C's discussion was five seconds longer than that of Team A, and still there were far fewer words offered during their exchange, and these words provided much less substance in terms of students' understandings. Furthermore, their comments were, at best, cryptic indications of listening. Except for an assumption one might make that listening was occurring due to the chronological progression of their document analysis (i.e., from documents 15 to 16, 17, 18, and 19), this selection offers little in terms of coding for verbal indicators of listening. In fact, there are several discourse markers that would seem to indicate someone had *not* been listening, as there are several points during this brief exchange when individuals seem to request that the speaker repeat himself or herself.

In looking for a similar point of comparison between the two teams, then, it would seem that other than the duration and approximate point in time during the entire discussion that these two selections occurred (with Team A's discussion occurring at minute 16:30 and Team C's occurring at 17:47) these two teams were, as initially suspected, quite dissimilar in their discourse. In order to determine if these differences were representative of the overall pattern present in Team C's discussion, I searched for another excerpt from the day's transcript that might provide a more robust discussion in terms of the ideas being expressed by the students. Although much of the discussion from minute 8:23 though the end of the class period, nearly 44 minutes later, focused on team

members' attempts to categorize each of the 40 documents in turn, there were a few segments during which team members took time to discuss the argument being presented in a given document in what might seem to be a collaborative effort to understand it, before moving on to the next article. Table 4.5 presents one such segment. During this exchange, team members realize that there are some contrary interpretations of document 32, and although Daniel corrects Rachel's misunderstanding of just who is on vacation (*"Not at Jim Farley….at Vice President Garner"*) much of the conversation is devoted to Rachel's and Catherine's attempts to comprehend the written text. Although Rachel's comment, *"Exactly. Not supporting it"* seems to acknowledge Catherine's previous comment ("*But wouldn't it have been 'for' it because he's mad that the Vice President isn't supporting the President at this time?"*), that the following comment restates her conclusion (*"So wouldn't it have to be 'for' the bill?"*) indicates that though Catherine might credit Rachel with listening to her, she does not yet think her intended message was understood.

Table 4.5. *Excerpt taken from Team C's Discussion*[1] *Coded for Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Daniel: *I think 32's "support."*	
Rachel: *Yeah. ... but they're kind of talking...*	acknowledges
Daniel: *But it's so far afterward*.	provides alternative opinion
Rachel: *Yeah. Like right here – they're talking about the President being mad at Jim Farley for taking a vacation.*	elaborates
Daniel: *Not at Jim Farley.*	provides alternate opinion
Rachel: *Oh*.	acknowledges
Daniel: *At Vice President Garner.*	
Rachel: *Oh. Garner. Yeah. He's getting mad at him for leaving and taking a vacation. Kind of saying, "I could have used him right now. But he's not here." That doesn't even really have to do with anything. I don't know. Maybe that's "against" it? I can't think of anything for 32.*	acknowledges; elaborates
Catherine: *But wouldn't it have been "for" it because he's mad that the Vice President isn't supporting the President at this time?*	provides alternate opinion
Rachel: *Exactly. Not supporting it. So...*	acknowledges
Catherine. *Yeah. So wouldn't have to be "for" the bill? Well, like, because that's saying Garner's not supporting it.*	
Rachel: *Yeah. That's what I'm thinking.*	acknowledges
Catherine: *So are we supposed to say that it's Farley or Garner?*	questions
Rachel: *Oh yeah.*	
Catherine: *'Cause that says Farley.*	
Rachel: *I would say against it. Because if the Vice President isn't there he's not supporting it. So maybe Farley's just like showing evidence of why they're against it or something. I don't know. I would say against it.*	responds to question

[1]excerpt taken from minute 40:42 to 42:32

Another distinguishing characteristic between Team C's and Team A's discussions included significant periods of silence, ranging from 20 seconds to 95 seconds in duration, in Team C. A brief examination of the video during such lingering moments of silence revealed that at least two, and sometimes all three, team members

were looking through either online or paper copies of the documents. Thus, although students were on-task, they were often engaged in "listening" to the text on the page rather than the verbal contributions of their fellow team members.

Also notably different was the presence of the Teaching Assistant (TA), who became part of Team C's discussion for nearly two and one-half minutes. During this time, the TA dominated the talk, offering an interpretation of one of the documents:

TA: *You got any questions? Daniel, you have any questions?*

Daniel: *Was Jim Farley "for" or "opposed?" He seems kind of vague.*

Catherine: *Jim?*

Rachel: *Fartel.*

Daniel: *Farley.*

TA: *Jim Farley.*

Daniel: *Yeah.*

TA: *I'd have to go back through. I think he's "for." He's part of the New Deal with Ickes. Yeah.*

Daniel: *All right.*

Rachel: *He's "for?"*

TA: *I believe so. Yeah. Just from the language of'"an adroit conservative maneuver designed to weaken the President."*

Rachel: *I put a question mark for that one. I didn't -*

Daniel: *It seems like...*

Rachel: *...we weren't too sure. We were trying to go through it again.*

TA: *Is that when, is he the guy that complimented the, yeah...*

Daniel: *It seemed like in 37 he seemed opposed.*

TA: *Yeah. He's more analytical about it, isn't he? Yeah. You see the way a diary is different from a memoir? See...he has time to sort of collect his thoughts...several years to kind of put everything in perspective. And then go back and write sort of a neutral position. Where someone writing in a diary is like, "that so and so, I hate that guy."*

Rachel: *Yeah.*

TA: *Yeah. He's one of the New Dealers with Ickes that is "FOR" it, but when he's writing several years later, I mean, can you see, he's pretty nice about everything. He calls…*

Rachel: *So this is after it?*

TA: *He calls the Republican leadership position masterful, even though he's with the President. So, he's basically saying, "We were in the right, but they had this masterful plan on how to deconstruct all of these things."*

Daniel: *All right.*

TA: *Does that make sense?*

Daniel: *Yeah.*

TA: *Farley's not someone you're going to have to...that's just...*

Daniel: *There's just a lot of his documents. I mean –*

Rachel: *Um-hmm.*

As is evident in the previous exchange, the TA provides clarification regarding whether Jim Farley supported or opposed FDR's plan, at Daniel's request. Although Catherine offers little in terms of verbal contribution, Rachel and Daniel intersperse either acknowledging statements or basic clarifying questions throughout the discussion, providing at least some indication that they are listening to the TA and that he should continue.

Although Day 1 served as the major team discussion component of this two-day activity (lasting more than twice as long as the discussion on Day 2), as half of the team

was absent for the first day's discussion, I again reviewed the audio from Day 2, analyzing various points in the dialogue (Table 4.6). As on the previous class day, two students were absent, one who had been present on Day 1 and one who had not. Consequently, only four team members were present on this second day.

Table 4.6. *Excerpt from Day 2 of Team C's Discussion*[1] *Coded for Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Darcie [to Tatyana]: *What was the thing about the delay though?*	
Tatyana: *Oh, it was, uh, the guy who did the committee…[starts flipping through documents] What was his name?…I like the Fireside Chats. They were so, like, biased. [laughs] They were horrible [inaudible]. Yeah. It was Tom Connally.*	responds to question
Darcie: *Yeah*.	acknowledgment
Tatyana: *He was like, "We need to keep this going as long as possible to raise public awareness" because FDR was so popular. And I think that was critical, like, get the masses against him.*	elaborates
Rachel: *Where does it say that?*	asks a question
Tatyana: *It says, …"we assumed that the first reaction would be to favor, our job was to prolong…"*	responds to question
Darcie [interrupts]: *What was the other one, the "Minimum Wage" one?*	
Tatyana: *Oh, you mean the ones that the Court supported?*	responds to question
Darcie: *Yeah*, [Daniel & Darcie crosstalk]	acknowledgement
Daniel: …*but up until then* [inaudible]	responds to question

[1]excerpt taken from minute 1:21 to 2:27

Even with the inaudible moments included within this brief, 66-second selection, it is clear that Tatyana was providing much of the substance, in response to Darcie's specific questions – who also happen to be two of the absent students from the previous class day. Darcie's subsequent comments could be interpreted as acknowledging statements, in an effort to encourage Tatyana to continue elaborating. Rachel's question indicates that she has heard the evidence provided by Tatyana, and is seeking more specific information regarding where it is located in the documents. As this topic of discussion comes to an end, Daniel seems to be offering a response to Darcie's second

query, *"What was the other one, the 'Minimum Wage' one?"* though it is difficult to be certain as his voice was hard to discern in this audio segment.

A second noteworthy portion of Day 2's discussion again involves the TA, who was once more invited into the team's discussion with a student question. As Table 4.7 shows, in the beginning, the TA's comments could be coded for verbal indications of listening, in that he is indicating that he has heard Daniel's comments (i.e., *"Sure. That's one of them for sure,"* and *"Yeah. It's a big change that he's proposing."*). Throughout the latter part of the conversation, however, the TA provides much of the substantive ideas, with team members punctuating his commentary with brief responses (e.g., *"Oh yeah"* and *"Right"*) that might verbally indicate at least three of the four team members present that day were listening to him talk.

Table 4.7. *Excerpt from Day 2 of Team C's Discussion*[1] *with TA Coded for Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Tatyana [to TA]: *What does 'concerns raised' - what does that mean, by the opposition?*	
TA: *Right. What are the opposition forces, or even [those] within his own party, saying?*	responds to question
Tatyana: *O.K.*	acknowledges
TA: *Does that make sense?*	
Tatyana: *Yeah*.	responds to question
Daniel [to TA]: *So what do you think the main reason it failed? We were thinking that it's because he's kind of overstepping his bounds.*	
TA: *Sure. That's one of them for sure.*	responds to question
Daniel: *That's a serious change.*	
TA: *Yeah. It's a – it's a big change that he's proposing.*	elaborates
Daniel: *Like the New Deal was kind of helping everybody out. Everything was aimed towards helping people* [inaudible]	
TA: *Right. You can say that it…another thing is, he really caught everybody off guard. Right? He didn't sort of – rally his own troops first.*	acknowledges; presents alternate explanation
Daniel: *Oh yeah.*	acknowledges
TA: *I mean one of its- is just the substance of the change*	
Tatyana: *Oh yeah.*	acknowledges
TA: *The other is sort of his tactics. How he went about it.*	
Rachel: *Yeah. He just thought everybody was just going to side with him.*	elaborates
TA: *Right. So there's sort of different ways it goes.*	acknowledges
Rachel: *O.K.*	acknowledges
TA: *And then there's [these] factions within his own party that he doesn't really – he doesn't really fully take into account before he goes about this really big, you know, massive change.*	
Rachel: *Right*.	acknowledges
Tatyana*: I forgot about that - consulting.*	summarizes
TA: *Is that, is that good?*	
Daniel. *Yeah.*	responds to question
Tatyana: *Perfect. Thank you.*	responds to question

[1]excerpt taken from minute 3:21 to 4:41

Although perhaps not substantial in and of itself, the ideas represented in this brief 80-second excerpt resurface later in the team's conversation, without the TA's presence. Approximately eight minutes later, Rachel and Daniel reconsider the notion that Daniel had first asked, and then received validation from, the TA regarding FDR *"overstepping his bounds."* What is interesting to note here, is that Rachel, not Daniel, is the one to reintroduce this topic:

> Rachel: *So he overstepped his boundaries. He....overestimated his support.*
>
> Daniel: *What was that?*
>
> Rachel: *Like, he overstepped his boundaries and he underestimated the support he had for this new bill.*
>
> Daniel: *He overestimated.*
>
> Rachel: *Yeah.*
>
> Daniel: *It was because of his ego he thought everyone was just going to support it. There were a lot of articles about [inaudible].*
>
> Rachel: *Yeah. And a third one could be...that...*
>
> Daniel: *That he didn't realize that there were so many factions in his own party. I guess you can evidence that off of, uh, Tom Connally and [inaudible]*
>
> Rachel: *Jim Farley?*
>
> Daniel: *And you could, like, his Vice President leaving.*
>
> Rachel: *But couldn't that go for the overestimating his support?*
>
> Daniel: *Could do both.*
>
> Rachel [laughs]: *Yeah.*

A few minutes later, another brief exchange between two team members occurs, as Daniel checks in with Darcie:

Daniel [directly to Darcie]: *So you got the other good reasons was that he assumed everyone would go along with it.*

Darcie: *Yeah. Like, didn't need any support. Just him saying it would be enough.*

Daniel: *Yeah. And he just, like, he didn't talk to anybody about it. He just kind of sprung it on everyone.*

Darcie: *Yeah. I wrote, "delayed the vote" [inaudible] and "his tactics."*

Daniel: *Yeah.*

Darcie: *And what was that big one? Document 18.*

Through each of the preceding excerpts, it is possible to argue that team members had likely been listening to the TA, even though their verbal contributions at the time the TA was talking were such that it was unclear whether they were true acknowledgements or simple politeness cues. Furthermore, Darcie, who was verbally absent throughout the TA's participation in their discussion, states that she, *"wrote…'his tactics',"* which are the exact words that the TA used when presenting an alternate explanation: *"The other is sort of his tactics."* At first glance, it may have appeared as though the TA's contributions were brief and insignificant. However, the fact that the two issues discussed during that brief interlude were later discussed between team members is further validation that when the TA was present, they had likely been listening.

Nonverbal indicators often go unnoticed. Although students more often referred to verbal rather than nonverbal indicators of listening during their interviews, nonverbal actions, particularly eye contact, was also mentioned. Furthermore, I felt it was important to consider what nonverbal actions might indicate for those students who were, overall, simply less verbal. That is, just because some team members might not have made many

verbal contributions that allowed for others to determine whether or not they were listening did not necessarily mean that listening had not occurred. Indeed, some degree of silence might be considered an essential element for one's own listening potential. Consequently, it was necessary to examine the videos for overt actions students displayed throughout the team discussion, as it was a logical possibility that although one might not have perceived nonverbals as listening indicators, such actions could have been present nonetheless.

Team A's actions as listening indicators. Analysis of the video revealed that many students displayed nonverbal indicators in conjunction with verbal ones. To illustrate, I return to the initial excerpt presented for Team A. As shown in Table 4.8, students often displayed the nonverbal indicator of eye contact immediately prior to contributing an appropriate verbal response. For example, Jackie was looking at Deborah, the speaker, as she says, *"O.K. 'Hiding his true reasons.' Where was that one?"* and then looks away to start typing on her computer, at Deborah's request, *"If you look up 'ventriloquist' I think that will show us the document that it was in."* Thus, it would seem that Jackie's reaction to search her computer could be considered an appropriate nonverbal response indicating she had heard Deborah. In fact, Jackie continued to look up at Deborah periodically throughout their exchange, returning to her laptop again only to read from the document she had located.

Table 4.8 *Team A's Discussion Coded for Nonverbal Actions*

Kaitlyn	Jackie	Felicia	Matthew	Deborah	Transcript
Rubs eye	Looks at Deborah (speaker). Types on computer	Flips through paper copies of documents	Briefly looks over towards Deborah, then back at computer	**SPEAKER** Looks at Jackie as she speaks	Deborah: *"OK. 'Hiding his true reasons' where was that one? Um...If you look up 'ventriloquist' I think that will show us the document that it was in."*
Leans over and looks at Jackie's computer screen	**SPEAKER** responds to question; looks at Deborah when asks, *"Is that the note?"*	Looking at paper copies of documents	Looks at computer	Continues looking at Jackie (the speaker).	Jackie: *"Um...*[reading from laptop] *'they would pick up 6 judicial sycophants, judicial marionettes to speak the ventriloquism of the White House.' Is that the note?"*
Looks up (at speaker?)				**SPEAKER** acknowledges Nodding	Deborah: *"Yeah, that's the one I'm talking about."*
Looks back over at Jackie's laptop screen as Jackie reads from document	**SPEAKER** elaborates	Continues to flip through documents, stops on one and appears to be reading from it	Looks around at various team members	Writes on team activity sheet	Jackie: *"O.K. That's document 15.* [Reading from document] *'…no mandate equal to rape the Supreme Court or tamper with the Constitution ... men and women of America who value these should exercise their constitutional right of petition and...' So…"*
Looks at Deborah (the speaker). Nods after she says *"hiding his true reasons"*	Looks at Deborah (the speaker) Nods Looks back at laptop	Locates and then underlines something on own set of documents	staring "past" group	**SPEAKER** summarizes Puts pen down. Looks up at team members as she speaks.	Deborah: *"Right. So that part was just saying that he wanted them to be his puppets. So that's why I put it under he was hiding his true reasons.* *Um...'Unwilling to compromise' - what document was that?"*
SPEAKER responds to question	Types on computer; scrolls down			Picks pen back up	Kaitlyn: *"Which one was towards the end?"*
Looks through own copies of documents	Looks at computer	**SPEAKER** responds to question Flips through own copies of documents	Looks at group	Looks at Felicia (the speaker) Rubs eye	Felicia: *"The one towards the end was, I think, most compelling one which was* [crosstalk]. *No this one was the one - no, I'm not thinking 39. The one where...there's too many documents...Robinson wouldn't get the job."*
Looking down at document	**SPEAKER** responds to question (earlier posed by Deborah)	Looks down at own document, continues to flip through them	Yawns, looks around	Looks at Jackie (the speaker)	Jackie: *"Ooh. Well in document 19 it says, "he continues to think his court bill's safe although the final margin might be a narrow one. He continues to fear that Robinson may compromise about consulting...Early in the week Senator..."*

Deborah, the other primary speaker in this segment (making three of the eight comments recorded here), might have been excused from making eye contact on this day, as she was the team's scribe for this activity. Although she was looking at Jackie during her initial comment, she was actually looking down and writing on the team activity sheet as Jackie elaborated with the evidence she located in one of the documents, *"...no mandate equal to rape the Supreme Court or tamper with the Constitution..."* A review of the team activity sheet finds the phrase *"wanted court to be his puppets"* written under the words, *"hiding his true reasons,"* just as Deborah reported. In all other instances during this brief excerpt, Deborah looked at whoever was speaking. Therefore, it would seem that Deborah was able to balance the demands of both listening and writing for at least this segment of the discussion, even when she was not able to display certain nonverbal actions.

In contrast, Kaitlyn did not consistently look directly at the speaker, but rather, at least during this time, displayed some tendency for leaning over and looking at Jackie's computer screen. Such an action could be interpreted as a nonverbal indicator that she was listening to Jackie, as she was looking at the same text that Jackie was reading aloud. Still, she did look at Deborah when she was speaking, and nodded her head in agreement as Deborah summarized Jackie's finding. Although she was looking down at her documents in search of the *"one towards the end"* when Felicia and Jackie were talking towards the end of this segment, making it difficult to discern whether or not she was listening at this time, her nonverbal actions would seem to indicate that at least she had been listening to the beginning of this conversation.

Felicia provided even less eye contact than Kaitlyn throughout this exchange. Indeed, Felicia appeared to be more engaged with locating something within her offline copies of the documents than with giving speakers eye contact. However, it is reasonable to consider that she heard Deborah's initial request for the document that referenced "ventriloquist" and that flipping through her documents was a nonverbal action that showed effort to respond to that request. That she stops flipping pages and appears to be reading shortly after Jackie comments, *"That's document 15,"* could support the conclusion that she had heard the previous exchange between Jackie and Deborah, located the passage, and was reading the text for herself as Jackie was reading aloud. Although such a subtle action would likely have gone unnoticed as an indication of listening by her team members in the moment, whether or not a nonverbal action is *recognized* as a listening indicator is irrelevant in terms of whether or not the action actually is *indicative* of listening.

Thus, these four team members provided at least some nonverbal actions that could be interpreted during analysis as an indication they were listening to at least some of the utterances in this segment of dialogue. However, Matthew, the fifth team member, provided little in terms of nonverbal listening indicators at all. For example, prior to Deborah's request to find the "ventriloquist" document, Matthew was looking at something on his computer. He looked over at Deborah only *after* she made her request, rather than while she was speaking, and then simply sat there seemingly looking down at the team's activity sheet as the others appeared to be trying to find this document. Such a response would seem to indicate that he actually had not been listening to the on-going

conversation. Moreover, when Deborah makes her second request, *"Um… 'unwilling to compromise' – what document was that?"* Matthew continued to sit and stare at nothing in particular. It would seem, then, that Matthew's nonverbal actions provided no more indication that he was listening than had his lack of verbal contributions in this segment.

As with my analyses for verbal indicators of listening, I went back and reviewed the video in its entirety, making observational notes regarding each individual's overt actions throughout the conversation. From these notes, I was able to identify individuals' patterns of nonverbal behaviors for times during the conversation when they were not verbally contributing to the group discussion. I then reviewed the video for Day 2's team discussion in order to determine how consistent these patterns might be.

As in the preceding excerpt, Jackie continued to utilize her laptop throughout Day 1's discussion, but referred to only her paper copies of the documents and notes on Day 2. That she spent much of Day 1 relying on her computer to locate the evidence might call into question how much Jackie was actually able to listen to her team members discuss the ideas represented in those documents. Though she was often able to contribute appropriately to the discussion by locating a specific document another person had referenced, the comments that were made <u>*as*</u> she searched on her laptop may or may not have been heard. Indeed, there are moments when Jackie herself realized that her efforts for locating supporting evidence may have interfered with listening, as when she asked her team members, *"Have we said anything about Ickes?"* and then started to say, *"because he said…"* at which time Deborah interrupted, *"Yeah – I said 'his supporters losing confidence' and then it says 'see Ickes'."* Clearly, Jackie had missed hearing at

least some of what her team members had discussed on Day 1. Without her laptop on Day 2, Jackie was able to look at the speaker more often, and was seen to be taking quick notes at various points during the second day's discussion.

As previously mentioned, Deborah served as the team's scribe for this activity. Although in trying to record what her team members were saying on the activity sheet she was sometimes unable to look at the speaker, I noted several times throughout the first day's discussion when she was looking at the person speaking. If she happened to be looking down as she wrote, I noted that she would sometimes be nodding her head, as if to indicate, "I hear you, even if I don't see you." There were also various points throughout the discussion when I noted that Deborah had a tendency to "talk to herself" as she wrote, saying things that I later saw recorded on the team's activity sheet. In retrospect, it was as if she had been trying to hold the floor verbally while she wrote, until she was able to turn her full attention back to listening to her team members. Still, there were a few times when it was clear that Deborah was unable to balance effectively the demands of listening and writing. At such times, I noted that her overt action was to stop writing, look up, and follow up with a verbal comment that was something along the lines of, "Huh?" As there was no need for a scribe on the second day, Deborah was free to look at her team members during the discussion as much as she wanted or needed. I noted that for most of this day's conversation, she did look at the speaker. However, there was a time when she was turned away from her group members as she took notes on her own set of documents.

Unlike Jackie and Deborah, who showed some variance across the two days in terms of their nonverbal actions, Kaitlyn's nonverbal actions were fairly consistent. Overall, she had a tendency of looking at the person who was speaking and would sometimes nod her head. In those moments when she did not look at the speaker, I noted that she was usually looking at her personal copy of the documents. Furthermore, such reference to her documents often occurred when she was looking for evidence to support or refute a team member's claim (e.g., when Felicia says, *"I remember reading that [they wanted to prolong the process], but I don't know which part it was in."*) or when the speaker was reading directly from one of the documents, as in the previous excerpt (Table 4.8). Throughout this two-day discussion, there was only one example of Kaitlyn's nonverbal actions indicating that she was likely *not* listening. During Day 1, she twice leaned over, said something to Matthew, and smiled while Deborah was speaking to the group. As Deborah posed a question, neither Kaitlyn nor Matthew responded, further supporting the conclusion that, at least for a moment, she was not listening to the team's discussion.

Felicia seemed to follow a similar pattern of behavior across both days' discussions. On the first day, I consistently noted that Felicia was flipping through her personal copy of the documents, locating information that she would often verbally contribute and sometimes underline for later reference. Consequently, she only occasionally looked up and glanced towards the speaker, and sometimes nodded her head in agreement. On the second day, Felicia continued to refer to her documents. However, at two different points, she posed a direct question to her team members, requesting

clarification regarding a particular event that had happened. During this time, she refrained from looking at her documents and instead looked at her team members as they responded to her question. It is worth noting that she interrupted Kaitlyn at three different points during Day 1's conversation, twice to provide a counter-argument. Thus, if it were not for the appropriate and frequent nature of her comments on Day 1, Felicia's nonverbal actions may have left outside observers wondering whether or not she had really been listening to her team members.

Of those in Team A who had been present for both days' conversation, Matthew's nonverbal actions were most different from one day to the next. Often on Day 1, I noted that Matthew had his eyes closed, or was resting with his chin in his hand, struggling to keep his eyes open. In fact, for much of the first 20 minutes, he appeared to be dozing off. Eventually, Deborah's direct request, *"Would you mind looking up 'coattails'?"* seemed to nudge him awake. Although he was unable to locate the document to which Deborah was referring in a timely manner, I did note that he continued to reference his laptop at various points during the rest of the conversation. He also sometimes looked in the speaker's direction, an indication that he was at least aware of who was speaking at the time, even if he was not cognitively processing, or listening to, the meaning of her words. On the second day of this activity, however, Matthew appeared to be much more alert. I noted that he was frequently looking at the speaker, taking notes, and referencing his laptop. Such actions, in conjunction with the appropriate verbal responses he contributed on Day 2, would seem to support the conclusion that he was listening more to his team members on the second day than he had been on the first.

As Stephen was absent for Day 1's discuss, I took careful note of his actions on the second day. Overall, I noted that he usually looked at the speaker, except for when he was referring to his personal copy of the documents in an effort to locate and mark a certain passage. Even then, he usually referenced his documents only when others in the group were also searching their copies for something, or when the conversation had devolved into more social chatter. Also, it was notable that Stephen tended to keep his hands folded on the table in front of him when others were speaking. Admittedly, I may not have noticed this nonverbal behavior had his hands not become somewhat more animated when it was his turn to talk. Without the appropriate nature of his verbal responses, however, it would have been difficult to determine whether or not such an action was also an indicator of listening.

Team C's actions as listening inhibitors. As previously mentioned, half of the six team members were absent for the first day allotted for team discussion. Although one of the three team members who were present started off sitting in the row that was in front of the other two team members, when it came time to work on the team activity, I recorded in my field notes that he moved to the back row to sit next to his fellow team members. Consequently, all three team members sat side-by-side throughout Day 1, creating a different physical arrangement than was typical for this group. Such a set-up meant that rather than facing one another during the discussion as Team A had, members of Team C were, by default, facing the front of the room. With Catherine seated on the far left and Daniel on the far right, anytime a team member wanted to look at the speaker, he or she had to turn his or her head, and sometimes even lean forward in order to see

around Rachel, who was seated in the middle. As might be expected, then, eye contact was not as prevalent in this team's discussion on Day 1.

A review of the video showed that, for much of the first day's discussion, members in this team were focused on their documents. In order to provide a representative sample of Team C's nonverbal behaviors during this day, I return to the initial segment of the transcript (Table 4.4) and present it alongside the actions each individual member displayed in Table 4.9.

Table 4.9. *Team C's Discussion Coded for Nonverbal Actions*

Catherine	**Rachel**	**Daniel**	**Transcript**
looking at computer	writing on personal copy of documents	**SPEAKER**	Daniel: *15 I put "opposed" too.*
SPEAKER looks up at Daniel (previous speaker) and leans forward	flipping through documents		Catherine: *Hmm?*
		SPEAKER acknowledges	Daniel: *15 I put "opposed."*
writes on team activity sheet, then returns to looking at computer	**SPEAKER** acknowledges? writes on personal copy; highlights something	looking down at personal copy of documents	Rachel: *Yeah.*
SPEAKER looks up and over at team members as she speaks, then looks back at computer	reading documents	leans forward in chair to look around Rachel at Catherine (speaker)	Catherine: *16 is "for" 'cause the President pressed Congress for it.*
looks at Daniel (speaker)	continues reading; does not look up, but slightly nods head	**SPEAKER** elaborates	Daniel: *Yeah. I think it's "for" because it talks about, like, it shows what FDR was saying.*
SPEAKER acknowledges writes on team sheet	underlines something on document	looks at Catherine	Catherine: *Yeah.*
looking at documents on computer	looking at documents	looking at documents?	30 seconds of silence
SPEAKER looks up at team members	continues looking at documents, slightly nods head		Catherine: *17, say "opposed"?*
looks back at computer, then writes on team sheet	**SPEAKER** looks over at Daniel's document, then writes on own document	flips page	Rachel: *Yeah. He…yeah…18? "Opposed" right?*
SPEAKER looks up at Rachel	highlighting	looking down (at documents?)	Catherine: *For 18?*
looks at computer	**SPEAKER** looks over at Catherine		Rachel: *Yeah.*
SPEAKER writes on team sheet	writes on own document		Catherine: *Yeah.*
writes on team sheet	**SPEAKER** writes on own document	sits up	Rachel: *19 "for."*
looking at documents on computer	looking at documents	**SPEAKER** flips page	Daniel: *Which one, 19?*
looking at computer	**SPEAKER**		Rachel: *Um-hmm.*
looking at computer	looking at documents	**SPEAKER**	Daniel: *Yeah.*

Although some eye contact and subtle nodding occurred during this selection, it is clear that students spent more time looking at their documents than they did looking at each other. Rachel, in particular, spent almost this entire time looking at her documents, highlighting, and making notations for later reference. Even when acting as speaker, Rachel continued to look down at her papers, which was distinctly different from Catherine, who managed to look away from her documents when she had something to say. In fact, Rachel looked at a team member for only one brief moment during this entire exchange, whereas Catherine continued to look back and forth from the documents visible on her laptop to her fellow team members.

As Catherine served as the team's scribe for the day, one might expect that the writing task would have interfered with her ability to listen, which might have prompted some of her "Hmmm?" type statements. Upon review of the video, however, I noted that Catherine was often looking at her computer rather than the team activity sheet during these times. Furthermore, Catherine's notes on the team activity sheet were almost as cryptic as the team's comments, as she usually wrote down document numbers or the author's name rather than paraphrasing the ideas presented in each document. Thus, it would seem that it was reading rather than writing that most challenged Catherine's ability to listen to her team members. Daniel seemed to be tied to his documents the least throughout the exchange. He would glance down at them, but did not appear to be referencing them as thoroughly as Rachel and Catherine were.

That there was little substance in the verbal comments offered throughout the rest of the day aligns with the overall tendencies for individuals to reference their documents

for the majority of the discussion. Rachel continued to spend most of her time looking at her set of documents and making notes on them rather than looking at her fellow team members when they were speaking. Catherine continued to focus on her laptop until she realized that someone else had said something, at which time she would look at the team member, ask him or her to repeat the comment, and then turn back to her laptop. Daniel sat with his own set of documents, on which he had made notations prior to class, and followed along as his teammates tried to categorize each one in turn. Of the three team members who were present, he was most able to make eye contact as he seemed most prepared with the documents, and seemed to do so consistently when he was also contributing verbally to the discussion.

As there were different people present on Day 2 of this activity, I reviewed the video and my field notes from the second day to see what nonverbal indicators of listening might be present. On this day, three team members sat in the front row and one team member sat behind them. This time, Daniel, who was now sitting on the far left, spent most of this discussion turned in his chair, facing the rest of his team members. Thus, he was ready to look at whomever spoke up. Tatyana served as the scribe, and was often either writing on the team activity sheet or her own set of notes. She also spent a good deal of time flipping through her documents trying to locate certain evidence that she thought would help make her argument. Rachel looked at her documents some of the time, but spent most of this day looking at what Tatyana was writing on the team activity sheet or engaged with another team member in discussion, providing eye contact and nodding.

As the TA made what seemed like important contributions to the team discussion on both days, I thought it was important to consider how team members' nonverbal actions might differ when it was the TA versus a team member who was the speaker. As the TA spoke on the first day, it would appear that very little changed; Daniel looked mostly at the TA, Rachel looked at her documents and nodded periodically, and Catherine looked back and forth from her laptop to the TA. On the second day, although Daniel continued to look at the TA during the exchange, he could be seen wrapping up a set of earphones as the TA finished his contribution. As on the previous day, Rachel spent at least part of the time writing something down in her notes, but then looked up and maintained eye contact as he finished. Catherine was not present on the second day.

The Relationship Between Listening and Learning

As one of the guiding questions for this study was to determine how effective indicators of listening within a small group context are associated with individual learning, it was necessary to look at an individually-produced outcome measure for evidence of learning. As previously explained, students wrote an essay at the end of Day 2 for this activity. For the essay, students were to identify the two reasons that they felt most contributed to the failure of FDR's bill and to justify their choices with evidence from the documents. Although it is impossible to claim that this essay purely reflected what individuals had learned through the group discussion as they may well have learned from their own study of the course documents or previous history courses, what is undeniable is how well the essay prompt aligned with the team activity. Consequently, I could use the essay as an outcome measure that was individually produced, and I could

compare it with the team discussion in order to see how ideas discussed by the team may have influenced an individual's understanding of this historical event.

Assessing individual understanding with a writing task. As a starting point, I analyzed the individual essays by team, identifying topics that students had included in their essays. In order to accomplish this task, I looked for phrases within each individual's essay that seemed to echo those of their fellow team members and charted them by topic (see Table 4.10 for an example). As one would expect from an essay, there were many possible ways students might respond to the prompt. Based on my analysis of Team A's essays, I initially identified 11 ideas that were mentioned by multiple students. Further consideration of these ideas led me to cluster these ideas into six main topics that represented what students had identified as reasons for the bill's failure and corresponding evidence.

Table 4.10. *Example of Two Topics Identified through Individuals' Essays*[1]

Topic	Felicia	Kaitlyn	Deborah	Jackie	Matthew	Stephen
too stubborn unwilling to compromise (e.g., wouldn't accept just two justices)	"When the opposition was fighting the bill publicly, FDR was **given many opportunities to make compromises. However, FDR refused**, which helped kill the bill all together." "The Senates said **if the bill was changed to two new justices** they would approve it. Once again, the **President did not want that compromise**"	"After the bill was denied… **FDR wouldn't accept compromise**. Ickes explains that there had been several compromises that would have been fine but the president would not yield."	"… even when compromises were presented to him, **he was too stubborn** to accept a partial victory. His first opportunity was when Senators stated that they would not be opposed to a bill that included **adding two new judges** to the Supreme Court, but four was just too many…Ickes cites **many times when compromises could have been made** and were not."	"His **stubbornness** made it **difficult to come to a compromise**…"	"Also, his **lack of compromise** and communication inevitable [sic] led to the bill's failure."	
not truthful		"… it made it apparent that President **Roosevelt was hiding his true intentions**. The democrats publically announced that the judges were '**overworked'** … disproved by Senator Wheeler explaining 'the **Court was not behind** in the work.'"	"… evidence was presented that **the court had, in fact, not been overworked and behind schedule**, as FDR had accuse them of and proposed the solution of the bill in Question.		"In Wheeler's document, he mentions that **FDR claimed that the Supreme Court was behind on its cases,** and that this is a result of the age of the Justices (over 70) …**Chief Justice Hughes letter that the Supreme Court is actually not behind**."	"He **chose to be 'clever' by arguing that the court was overworked (and slow)** …When Wheeler spoke on the Senate floor, he read **Chief Justice Hughes' letter, effectively dismissing the argument** that FDR had been leaning upon."

[1]**Bolded text** highlights phrases used to identify common topics across individuals' essays.

As Team A had a fairly robust and cohesive conversation, I anticipated that there would be some similarities across essays for at least those four team members (Kaitlyn,

Felicia, Deborah, and Jackie) who had appeared most engaged via their verbal contributions and nonverbal actions on Day 1, the day on which teams had the most time to discuss the documents. What my analysis of the essays revealed was that there was considerable overlap for many of the topics across all six team members (Table 4.11).

Table 4.11. *Topics Included in the Individual Essays for Team A*

Topics (and subtopics)	**Felicia**	**Kaitlyn**	**Deborah**	**Jackie**	**Matthew**	**Stephen**
Well-organized opposition	✔	✔	✔		✔	✔
• Van Devanter's resignation	✔	✔	✔			
• prolonged committee hearings	✔		✔		✔	✔
• "playing a bad hand perfectly"	✔	✔		✔		✔
FDR's assumption he had support		✔	✔	✔	✔	✔
Invalid reasons/Not truthful		✔	✔		✔	✔
FDR's stubbornness/unwillingness to compromise (even w/VP Garner)	✔	✔	✔	✔	✔	
Unconstitutional (tyranny)	✔	✔				
Robinson's death			✔	✔		

It is important to remember that Stephen had been absent for the first day's discussion and, although Matthew had been physically present, he appeared to be cognitively disengaged from most of the talk that was occurring between his team members. It was somewhat surprising how much their essays aligned with many of the topics that were included in the other four team members' essays. It is possible then, that within the range of possible reasons any one essay might include, there were not an

infinite number of reasons students could identify in response to this particular essay. Therefore, in light of such a limitation, I anticipated that my analysis of Team C's essays would include many of the same topics, but with perhaps less consistency between team members.

As shown in Table 4.12, as expected, some of the same topics found across essays for individuals in Team A were also included by students in Team C, with only one new topic that was introduced by Daniel, the idea that the Democratic Party was fractured. However, the consistency with which members in Team C incorporated these topics into their individual essays was much greater than I had anticipated.

Table 4.12. *Topics Included in the Individual Essays for Team C*

Topics (and subtopics)	**Tatyana**	**Darcie**	**Daniel**	**Rachel**	**Catherine[1]**	**Kevin[2]**
Well-organized opposition	✔	✔				
• prolonged committee hearings	✔	✔				
FDR's assumption he had support	✔	✔	✔	✔		
Invalid reasons/Faulty argument	✔					
Unconstitutional (overstepping bounds of Executive Branch)	✔	✔	✔	✔		
fractured Democratic Party			✔			

[1]Catherine's essay was excluded from this analysis as she did not consent to access to her individual work or grades.
[2]Kevin's essay was excluded from this analysis as he was absent both class days during which this activity was discussed.

What also becomes evident in Table 4.12 is that there were several topics that multiple members of Team A had included in their essays that were not mentioned by

any members of Team C (i.e., Van Devanter's resignation, FDR's stubbornness, Robinson's death). Furthermore, four students in Team A had quoted the document by Ickes stating that FDR had *"played a good hand badly"* whereas Hughes had *"played a band hand perfectly,"* an idea that I knew the team had discussed on Day 1. However, no one from Team C even referenced this idea. That Stephen, who had been absent for Day 1's discussion, had also referenced this article led me to conclude initially that the phrase was perhaps memorable enough in and of itself that students might not need the team's discussion in order to appreciate how it might support their arguments in the essay. As no student from Team C included a reference to this idea, I considered the possibility that Team A may have revisited this idea on the second day. A review of the audio revealed that Team A did, indeed, reference this document on the second day.

Still, as Team C's discussion had been much more limited across both days in terms of substance, and the fact that two individuals in that group had missed the first day's discussion altogether, I was at first confused by the overall consistency across individuals' essays. It would seem, then, that while the nature of the essay prompt and the documents students were given might have provided parameters for students' responses such that there were bound to be some similarities, the fact that Team A's responses incorporated more ideas, whereas Team C's responses showed more consistency among team members, indicated that the differences in the teams' discussions seemed to have influenced individuals' responses.

Locating individuals' essay topics in the team's talk. Once I had identified the main topics included in the essays, I returned to each team's transcripts and looked for

evidence that they had discussed those ideas. By highlighting phrases in the transcript that aligned with the ideas in their essays, I discovered that Team A had discussed the six main topics included in team members' essays on Day 1. Some of these topics were also discussed on Day 2, with Stephen and Matthew often participating in the talk (see Table 4.13 for and example).

Table 4.13. *Essay/Transcript Excerpts for One Topic Included by Individuals in Team A*[1]

Topic	Felicia	Kaitlyn	Deborah	Jackie	Matthew	Stephen
bad hand perfectly/ good hand poorly	"Ickes referred to him [Chief Justice Hughes] as **playing a bad hand perfectly**"	"As Ickes wrote the opposition had, '**played a bad hand perfectly**. While [the democrats] have played a good hand badly.'"		"…he was said to be '**dealing a good hand, poorly**." The stratedy [sic] of his opposition were able to 'deal a terrible hand, perfectly' with organization and aggression. [Doc 34]"		"As Ickes mentioned in his diary, FDR '**played a good hand badly'** – especially compared to Hughes, who 'played a bad hand perfectly.'

Day 1 Transcript [6:34 to 8:03]

Kaitlyn: *There was also, I think a big one was – you kind of said it – like strateg- like, strategy on the opposing side with like, the resignation of Van Devanter. And in one of the documents it said Cummings **dealt a perfect hand…he dealt…let me find it.***

Deborah: *He **dealt a bad hand perfectly, or he played a bad hand perfectly and we played a good hand poorly.***

Kaitlyn [to Jackie]: *Will you just type in '**hand'**?*

Deborah: *And then, one thing…*

Kaitlyn [continues talking to Jackie]: *It's like a quote. It's like, **bad hand...good hand…***

Jackie: *Yeah, right here* [points to laptop].

Kaitlyn: *Hughes **has played a bad hand perfectly while we played a good hand**…*

Jackie [talking over Kaitlyn] *That's document 28.*

Mathew: *Are these still supposed to be for the first part*? [pointing to team activity sheet – what Deborah has been writing on the back]

Deborah: *These are just reasons why we think it failed.*

Jackie [to Deborah]: *If you want to put in parentheses after it – that's document 28 – **the bad hand**. Well, I don't know if you've written it down **– the bad hand perfectly and the good hand…***

Deborah: *Um,* [speaking as writing] ***bad vs. good***

Jackie: ***hand***

Deborah: *You said 28?*

Jackie: *Yes.*

Day 2 Transcript [6:35 to 7:43]

Stephen: *My last point is just about the efforts of the opposition...In "The Nation" - I think it's "The Nation" - that said **that the opposition played a bad hand well.***

Jackie: *Yeah. I actually put that in my journal.*

Stephen: *Yeah*.

Felicia: *Where was that one? I don't have that one underlined.*

Jackie: *I don't think we found it.*

Kaitlyn: *I don't think - that was in 27, we found it. We did...*

Matthew: *So you organized it by his lack of communication, um, the way he proposed it, and the opposition's...*

Stephen: *Yep*.

Jackie: *Because I remember looking...actually...yes we did. Document 28.*

Felicia: *Document 28?*

Stephen: *Yeah. You're right. So, "The Nation" says that [inaudible] played politics. But then, the next one, document 28, says...*

Felicia: *Where does it say it?*

Kaitlyn: *On the, page 15, the last paragraph of document 28, "Get rid of the two justices…"*

Felicia: *Oh, there we go...*

[1]**Bolded text** highlights the phrases used to identify commonalities across essays and within the transcript.

In contrast to the comprehensive discussion that occurred in Team A on Day 1, for Team C the only topic that received much attention during that first day's discussion was the idea that FDR assumed he had the support he needed to get his bill passed:

> Catherine: *Yeah*, [reads from team activity sheet] *"Roosevelt's assumptions, or strategies."*
>
> Rachel: *What's the next one?*
>
> Catherine: *Roosevelt's assumptions or strategies.*
>
> Daniel: ***Roosevelt just kind of assumes everyone's going to support him*** *from the start. And they don't.*
>
> 95 seconds of silence; Rachel and Catherine look through documents.
>
> Catherine [reading from laptop]: *It said that* ***the evident assumption that he did not need to support his wishes by argument or appeal*** *so he didn't back up and support them.*
>
> Rachel: *Yeah*.
>
> Daniel: *Beyond fireside chats* ***he assumed everyone was going to support him***. *I don't think he had a strategy at all.*
>
> Catherine: *What?*
>
> Daniel: *I don't think, like, beyond the Fireside chats* ***he's just assuming everyone's going to support him so I don't think he really had a strategy***. *He was just, like, "I'm going to throw this out there and everyone's gonna vote it through."*
>
> Catherine: *Yeah. Yeah.*
>
> Daniel: *And nobody did.*

It is interesting that, in nearly 52 minutes of discussion, this two minute and forty second segment (which occurred in the last seven minutes of the team's talk) represents one of only two times when team members talked about ideas that individuals later wrote about in their essays. It is also noteworthy that, although Rachel made what might be interpreted as an acknowledging statement indicative of listening, it is Daniel and Catherine that had the most to say about this idea.

As shown in Table 4.14, all four students who completed the essay at the end of Day 2 wrote about this idea, even though only two of these students had been present for the first day of discussion.

Table 4.14. *Essay Excerpts for Topic "Assumed Support" for Individuals in Team C*[1]

Topic	Daniel	Rachel	Tatyana	Darcie
Assumed support	"… **Roosevelt just assumed nobody would oppose him.** As Ickes said (Document 28), the President felt as though he had won by such a wide margin that everyone in Congress rode his coat-tails and owed him their support. George Creel (Document 2) tells us that he didn't even talk to anyone regarding the bill before he began trying to have it passed. The President… had no real plan, **only the assumption that nothing he wanted could ever be denied."**	"…and he **overestimated his popularity and support** by thinking this was a good idea and **not consult Congress or party leaders** before proposing the Bill." …FDR had **overestimated his support,** and he believed he didn't need to support his reasoning of this bill. In the article "Rebel at Large" by George Creel, he asked FDR about consulting with supporters before issueing [sic] this bill and his response was that "…**the very evident assumption that he did not need to support his wishes by argument or appeal…."** So he showed no interest in gaining support of this bill, when really he needed it."	Last paragraph - "…when FDR introduced his bill **he didn't consult anyone** else, including those in his own party, **assuming they would just go along with him** (according to George Creel's Rebel at Large). FDR felt he personified the will of the Nation and was thus sure that if he decided on a reform all would go along with it."	..."and so came the tactical blunder in the proceeding.. the failure to take counsel with the congressional leaders on **the assumption that they would not dare oppose his wishes"** (document #3) FDR was used to having his own way and **falsely assumed that his plans would be successful** merely because he had come up with them."

[1]**Bolded text** highlights phrases used to identify commonalities across individuals' essays.

Upon further review, I noted that Catherine had made the following notes on the team activity sheet before turning it in to the instructor at the end of that first day:

- *FDR assumed that everyone would support him from the beginning*
- *did not support his plan with any argument or appeal*

Because of the two-day structure of this activity, and the essay that occurred at the end of Day 2, the instructor had, for this activity, scanned each team's sheet and emailed it as a pdf attachment to each team member prior to Day 2's discussion. Although it is not possible to be certain whether students referred to the sheet in preparation for Day 2's essay, one of the absent students (Tatyana) did reference to it in her journal response for that day, *"I didn't actually attend class this time. From the sheet I received, my team came up with a lot of good points and examples."* Thus, it was possible for those who had been absent to "hear," in a way, at least part of the team's discussion through the words that had been recorded on paper.

Furthermore, it is important to remember that teams were given some time, immediately prior to writing the essay, to discuss these documents in an effort to understand why FDR's bill failed. Thus, although Day 2's conversation was considerably shorter, it could still have influenced individuals' essays. Upon review of the team's discussion on the second day, I found two different segments when Team C's members further talked about this idea. The first time this idea appeared in the discussion was when the TA was also a part of the conversation:

> TA: *Right. You can say that…another thing is,* ***he really caught everybody off guard****. Right? He didn't sort of – rally his own troops first.*
>
> Daniel: *Oh yeah.*
>
> TA: *One of its- is just the substance of the change*
>
> Tatyana: *Oh yeah.*
>
> TA: *The other is sort of his tactics. How he went about it.*
>
> Rachel: *Yeah.* ***He just thought everybody was just going to side with him.***

TA: *Right. So there's sort of different ways it goes.*

Rachel: *O.K.*

TA: *And then there's [these] factions within his own party that he doesn't really – he doesn't really fully take into account before he goes about this really big, you know, massive change.*

Rachel: *Right*.

Tatyana: *I forgot about that* - ***consulting***.

TA: *Is that good?*

Daniel. *Yeah*.

Tatyana: *Perfect. Thank you.*

Again, the bolded text helps highlight where the idea is represented in the talk. This time, Daniel is the one making acknowledging statements, Rachel is the one who elaborates, and Tatyana's statement concisely summarizes the idea. Nearly 10 minutes later, Darcie and Daniel have their own discussion about this idea, which Daniel begins with a summarizing statement that reintroduces the idea:

Daniel [directly to Darcie]: *So you got the other good reasons was that* ***he assumed everyone would go along with it.***

Darcie: *Yeah. Like,* ***didn't need any support. Just him saying it would be enough.***

Daniel: *Yeah. And he just, like,* ***he didn't talk to anybody about it****. He just kind of sprung it on everyone*.

Darcie: *Yeah. I wrote 'delayed the vote' [inaudible] and 'his tactics'*

Daniel: *Yeah*

Darcie: *And what was that big one? Document 18.*

Collectively, then, these three excerpts demonstrate that all four team members were at some point listening to the idea as it was being discussed, as their spoken words could be coded as an appropriate verbal response.

With such verbal evidence for this one essay topic, I searched the transcripts from Day 2 for the other topics members of Team C had included in their essays. I discovered that all of the topics that individuals had included in their essays were at least mentioned during the conversation on the second day. Such evidence of the ideas represented in the talk does not mean that students were necessarily listening to the discussion at that moment. It was necessary, therefore, to return to the analyses of verbal and nonverbal indicators of listening in order to determine whether the individual was listening when the team was discussing these ideas.

Listening indicators align with individuals' choice of essay topics. Although it was clear that each of the topics included in individuals' essays had, at some time during the two-day discussion, been talked about by their respective teams, it was still unclear whether or not the individual was influenced by the team's discussion. Therefore, it was necessary to analyze the individual essay systematically, alongside a transcript of the team's discussion coded for nonverbal actions in order to determine if there was an association between listening indicators and individual outcomes. I started with one student each from Team A and Team C who had been present and at least somewhat engaged during Day 1's discussion to explore this relationship further.

From Team A, I began with Kaitlyn, who had included several ideas in her essay (Table 14.11). Using Day 1's transcript that I had previously coded for students'

nonverbal actions (as shown in Table 4.8), I located the segments of talk that aligned with her essay topics and highlighted my notes regarding her nonverbal actions. I also reviewed the transcript for whether Kaitlyn was a verbal contributor to these segments of text and if so, whether her comment would be considered a verbal indicator of listening (Figure 4.1).

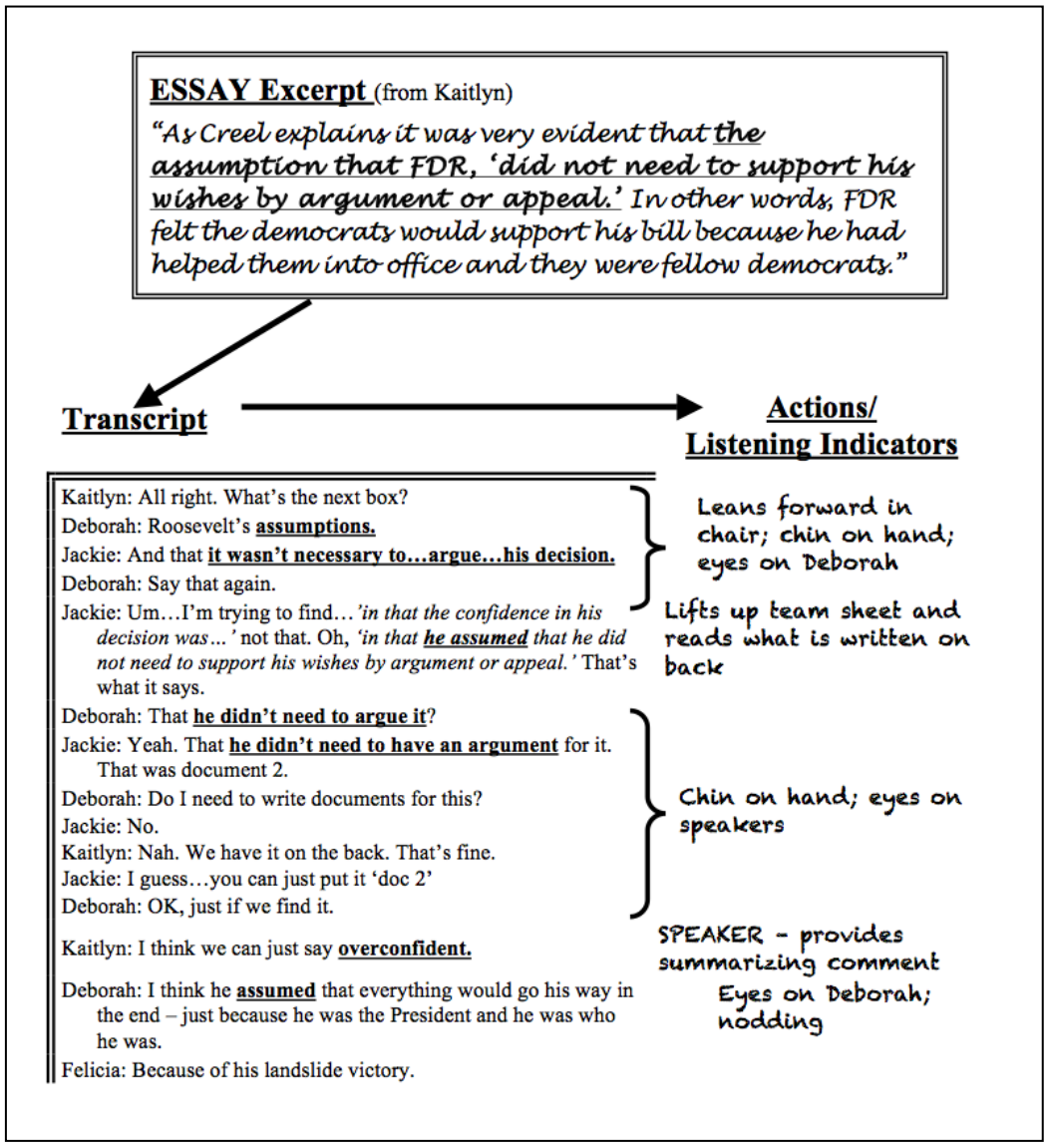


Figure 4.2. Tracing of One Essay Topic (Assumptions) from Essay to Indications of Listening

In looking at all segments of the transcript where the team was discussing ideas that were eventually reflected in Kaitlyn's essay, I was able to discern that certain nonverbal and verbal indicators of listening were present during these points in the conversation. As shown in Table 4.15, although there were times when she was looking through her documents, Kaitlyn generally had her eyes on the speaker. There were also several times throughout the conversation when Kaitlyn would nod her head in agreement, usually in conjunction with giving the speaker eye contact, and sometimes with one of the more cryptic acknowledging-type statements such as, "Right." Kaitlyn contributed verbally to the talk about all the topics included in her essay, usually with elaboration, supporting evidence, or a brief summarizing statement.

Table 4.15. *Kaitlyn's Nonverbal Actions and Type of Verbal Contributions that Occurred During the Team's Day 1 Discussion for the Topics Included in Her Essay*

Essay Topic	**Nonverbal Actions**	**Type of Verbal Contributions**
Well-organized opposition	eyes on speaker; nods looks through docs.	provides supporting evidence
Van Devanter's resignation	eyes on speaker leans forward, reading team activity sheet as Deborah writes	elaboration restates
"playing a bad hand perfectly"	eyes on speaker; nods	introduced topic
FDR's assumption he had support	eyes on speaker; nods leaning forward with chin in hand; looks at notes on team activity sheet	acknowledges summarizes
Invalid reasons/not truthful	eyes on speaker; nods briefly looks down at docs, then at Jackie's laptop	acknowledges asks follow-up question
FDR's stubbornness/unwillingness to compromise	eyes on speaker; nods looks through docs.	acknowledges summarizes provides supporting evidence
unconstitutional/tyranny	eyes on speaker; nods	provides alternate opinion summarizes

That Kaitlyn displayed both appropriate verbal contributions and nonverbal actions during times in the discussion when the team was talking about the ideas that were later included in her essay supports the conclusion that she was indeed listening to the conversation. However, what it does not reveal is what might have been happening when the team was discussing the topics that were not included in her essay. Was she not listening, or did she perhaps make a choice not to include the topic in her essay response?

As shown in Table 4.16, there were not many topics represented across Team A that were not included in Kaitlyn's essay. Still, of the two ideas that were not in her essay, there is evidence for the argument that she was not listening for at least one of them, and that she was perhaps confused for the other. For example, for the segment during which Team A was discussing how the opposition prolonged the committee hearings, Kaitlyn was adjusting her shoe, looking at the speaker, leaning over to view the document on Jackie's laptop, and having what appears to be an off-topic conversation with Matthew. She also made no verbal contributions to the team's conversation at this time. In contrast, when the team was talking about Robinson's death, Kaitlyn appeared to be listening, but was somewhat confused. Although later in the discussion she does identify Robinson's death as one of the "pivotal points" that contributed to the bill's defeat, it is unclear from that statement whether her confusion was truly resolved.

Table 4.16. *Kaitlyn's Nonverbal Actions and Type of Verbal Contributions that Occurred During the Team's Discussion for the Topics Not Included in Her Essay*

Essay Topic	**Nonverbal Actions**	**Type of Verbal Contributions**
prolonged committee hearings	leans over and adjusts shoe lace eyes on speaker; nods looks at Jackie's laptop screen leans up and says something inaudible to Matthew, smiles	none
Robinson's death	eyes on speaker	interrupts – statement indicates some confusion

Although there were fewer topics represented across essays for individuals in Team C (Table 4.12) and the discussion itself had been less substantive, my initial analysis of the transcript alongside the essay topics revealed that the topics included across student essays had been a part of the team's conversation. Therefore, I turned next to the analysis of the essay for one student in Team C alongside his nonverbal actions and verbal contributions.

Daniel included three ideas in his essay, two of which had been included by three fellow team members. As shown in Table 4.17, Daniel also displayed as a pattern the behavior of looking at the speaker for at least part of the talk that focused on the given topic. Although he did not nod his head in agreement as Kaitlyn had done, he did contribute verbally to these segments of conversation. For two of the topics, he introduced the idea into the conversation, and then elaborated on it further once a team member verbally acknowledged him.

Table 4.17. *Daniel's Nonverbal Actions and Type of Verbal Contributions that Occurred During the Team's Discussions for the Topics Included in His Essay*

Essay Topic	**Nonverbal Actions**	**Type of Verbal Contributions**
FDR's assumption he had support	briefly turns head towards team, then looks down; eyes on speaker (TA)	introduces idea, elaborates acknowledges (TA)
Unconstitutional (overstepping bounds of the Executive Branch)	eyes on speaker	introduces idea, elaborates asks TA to validate idea
fractured Democratic Party	eyes on speaker wrapping up his headphones	elaborates

When reviewing the audio and video segments of the team's discussion when these three ideas were discussed, I noticed that the TA was part of the conversations that referenced each of these topics. Although Daniel first introduced the idea that, *"Roosevelt just kind of assumes everyone's going to support him from the start – and they don't,"* during a time in Day 1's discussion when the TA is not there, the TA affirmed Rachel's comment, *"He just thought everybody was jut going to side with him,"* on Day 2. Daniel also introduced to the team discussion the idea that FDR was overstepping his bounds with his comment, *"He was trying to change the way government works."* This time, he directly asked the TA for validation by saying, *"So, what do you think the main reason it failed? We were thinking that it's because this kind of overstepping his bounds."* Not only did the TA confirm Daniel's hypothesis, but he also provided the alternative idea that, *"...there's factions within his own party that he doesn't really fully take into account before he goes about this really big, you know, massive change."* Daniel later takes up this idea when he responds to Rachel request for a third reason the bill failed with, *"...he didn't realize that there were so many factions in his own party."*

Upon further review of the topics that were <u>not</u> included in Daniel's essay, there do appear to be some indicators of listening (Table 4.18). Although the cues are

somewhat ambiguous during the talk about how the opposition prolonged the committee hearings, when the team was discussing the idea that FDR's reasons were invalid, Daniel provided both verbal and nonverbal indications of listening. Thus, it is likely that in this particular instance, he had heard the idea, but either forgot about it or made a choice not to include the idea as part of his essay. It is worth noting that the TA did not contribute to the discussion that centered on either of these two ideas, which may have influenced Daniel's decision of what to include in his essay as the TA was in a position to evaluate his final product.

Table 4.18 *Daniel's Nonverbal Actions and Type of Verbal Contributions that Occurred During the Team's Discussions for the Topics Not Included in His Essay*

Essay Topic	**Nonverbal Actions**	**Type of Verbal Contributions**
Well-organized Opposition • prolonged committee hearings	turned towards team; looking at team activity sheet	acknowledges?
Invalid Reasons/Faulty argument	turns towards team playing with watch	responds to question elaborates

Team B as a Site for Checking Conclusions about Learning through Listening in Teams A and C

Verbal and nonverbal indicators of listening were found to be similar across Teams A and Team C, in spite of the differences that existed in the nature of each team's discussions and the degree to which individual members chose to contribute to that conversation. Furthermore, how these indicators in the team discussion aligned with the individual outcomes did not differ across either Team A or Team C. In considering an individual from each of these two teams, the ideas included in the essay reflected times in the conversation when the individual displayed verbal and nonverbal listening indicators accordingly. However, the similarities in the essays for individuals within the same team,

when compared with those of the other team, revealed that the ideas individuals in these two teams offered were bounded by the ideas that each team had discussed. Thus, a robust, cohesive conversation provided fertile ground from which the individual could later cultivate and harvest a hearty representation of his or her understanding. In order to check whether these conclusions might be applied to other teams, I analyzed Team B's discussions and its team members' essays in the same manner in which I had studied Teams A and C.

Verbal Contributions Differed for Team B

Returning to the transcripts and video recordings for the discussions Team B had regarding this same activity, I was able to identify these same types of verbal indicators of listening within the conversation. In spite of this commonality, this team's discussions was distinctly different from those had by either Team A or Team C. In contrast to the discussions that occurred in these other two teams, students in Team B were often exposed to multiple verbal contributions that seemed unrelated and that vied for their attention. Even though coherence between some team members could eventually be found within an excerpt of the discussion, indicating that individuals were listening to at least one other team member, comments focused on constructing meaning of the content were often interwoven with less constructive comments that were either more social in nature or related to understanding the group's task. For example, the following excerpt, just over two minutes in length, illustrates how challenging it could be to find coherence in the team's conversation, particularly if the comments were taken in chronological order:

Delia: *Raymond Moley*

Shelly: [inaudible]

Alan: [singing] *Sometimes I feel like Jesse James* ♪♫♩

Delia: *Have you learned any more songs in class piano?*

Alan: *What was the last one I learned?*

Delia: *I don't - the last one you told me you learned was Journey.*

Alan: *Was what?*

Delia: *Was "Don't Stop Believing." Uh, Moley was one of Roosevelt's original "braintrusters."*

Shelly: [unintelligible]

Alan: [singing] ♪♫♩

Shelly: *Oh, he was a minus. He "fought hard against it."*

Alan: *What do you listen to on Pandora?*

Shelly: *A wide variety of things. That's my Bruce Springsteen station.*

Delia: *And then we have Harold Ie-keyes, Ick-es - Ie-kus (Ickes) - she pronounced that earlier.*

Shelly: *He was...*

Delia: *Secretary of the Interior*

Unknown: *Who?*

Alan: *Can I type in George Straight?*

Marie: *The articles we had to read* [unintelligible]

Shelly: *Did you go to that concert?*

Alan: *No. But I almost did though.*

Delia: *OK. Then there's another Rosenman document. There's another Ickes.*

Alan: [continues talking, unintelligible]

Delia: *There's a letter <u>from</u> FDR, so*

Shelly: *FDR. He would be*

Delia: *for FDR* [laughs]

Alan: (singing) *sometimes I feel like Jesse James…*

Shelly: *I muted it. That is another FDR.*

Delia: *Fireside Chat. ... Then there's Time Magazine*.

Marie: *Did you read the packet yet?*

Shelly: *So I guess that would be the media.*

Alan: *Yeah. Time Magazine. I read that, but I don't really remember what that was about.*

Shelly: *Hmm?*

Alan: *I read that one.*

Camilo: *You mean the one with the 40 documents?*

Shelly: *Then it's Connally.*

Alan: *Read that one.*

Marie: *Yeah. You were supposed to read all of them but...*

Camilo: *Well, of course yeah,* [unintelligible]

Marie: *Well, we're just going over all of it right now.*

Delia: *I would imagine he was…*

Shelly: *He was against it. "He drew the line at Roosevelt's Court bill."*

Delia: *Gotcha.*

Camilo: *So, what are we writing?*

Marie: *Um...*

Shelly: [interrupts Marie] *We're just listing out all the players right now.*

Delia: *Do we have Jim Farley yet?*

Shelly: *We have two days for this one.*

Camilo: *Right.*

Delia: *Do we have Jim Farley?*

Camilo: *So wait. So do we also have two days for this assignment?*

Marie: *Yeah.*

Camilo: *Really?*

Marie: *And she's going to, like, scan it and email it to us so we have it for our in-class essay.*

Upon first read, it is hard to detect the coherence in this portion of the transcript, as on-topic and off-topic comments are so closely intermingled. However, further analysis of the video provided visual cues indicating that, at times, individuals were speaking to only certain individuals rather than to the group as a whole. Using these cues, and the content of each verbal contributions, I was able to tease apart three distinct topics within this brief segment of the discussion, each one involving a subset of members in the team. As Table 4.19 illustrates, individuals contributed verbally to each of these three topics to varying degrees. Considering this team's conversation purely in chronological order, then, one could argue that little listening appears to have occurred during this part of the conversation, as each comment does not appear to be linked with the one immediately preceding it as had been present in the other two teams' discussions. Within each of these three topics, however, team members did display some of the same listening

indicators that the other two teams had used during their more content-focused conversations, including acknowledging, elaborating, and questioning statements.

Table 4.19. *Finding Coherence in Team B's Discussion*[1]

Topic 1 Understanding the Documents of FDR's Courtpacking	**Topic 2** Social Banter	**Topic 3** Understanding the Group's Task
Delia: *Raymond Moley*		
Shelly: [inaudible]		
	Alan: [singing] *Sometimes I feel like Jesse James*	
	Delia (to Alan): *Have you learned any more songs in class piano?*	
	Alan: *What was the last one I learned?*	
	Delia: *I don't - the last one you told me you learned was Journey.*	
	Alan: *Was what?*	
	Delia: *Was "Don't Stop Believing"...*	
Delia: *...uh, Moley was one of Roosevelt's original "braintrusters."*		
Shelly: [unintelligible]		
	Alan: singing	
Shelly: *Oh, he was a minus. He "fought hard against it"*		
	Alan [to Shelly]: *What do you listen to on Pandora?*	
	Shelly: *A wide variety of things. That's my Bruce Springsteen station.*	
Delia: *And then we have Harold Ie-keyes, Ick-es - Ie-kus (Ickes) - she pronounced that earlier.*		
Shelly: *He was...*		
Delia: *Secretary of the Interior*		
Unknown: *Who?*		
	Alan: *Can I type in George Straight?*	
		Marie: *The articles we had to read* [unintelligible]
	Shelly: *Did you go to that concert?*	
	Alan: *No. But I almost did though.*	
Delia: *OK. Then there's another Rosenman document. There's another Ickes.*		
	Alan: (continues talking, unintelligible)	
Delia: *There's a letter from FDR, so*		
Shelly: *FDR. He would be*		
Delia: *for FDR* [laughs]		
	Alan: (singing): *sometimes I feel like Jesse James…*	
	Shelly (to Alan): *I muted it.*	
Shelly: *That is another FDR.*		
Delia: *Fireside Chat. ... Then there's Time Magazine.*		

		Marie [to Camilo]: *Did you read the packet yet?*
Shelly: *So I guess that would be the media.*		
Alan: *Yeah. Time Magazine. I read that, but I don't really remember what that was about.*		
Shelly: *Hmm?*		
Alan: *I read that one.*		
		Camilo: [to Marie] *You mean the one with the 40 documents?*
Shelly: *Then it's Connally.*		
		Marie [to Camilo]: *Yeah. You were supposed to read all of them but...*
Alan: *Read that one.*		
		Camilo [to Marie]: *Well, of course yeah,* [unintelligible]
		Marie: *Well, we're just going over all of it right now.*
Delia: *I would imagine he was…*		
Shelly: *He was against it. "He drew the line at Roosevelt's Court bill."*		
Delia: *Gotcha*.		
		Camilo: *So, what are we writing?*
		Marie: *Um...*
		Shelly: [interrupts Marie] *We're just listing out all the players right now.*
Delia: *Do we have Jim Farley yet?*		
		Shelly: *We have two days for this one.*
		Camilo: *Right.*
Delia: *Do we have Jim Farley?*		
		Camilo: *So wait. So do we also have two days for this assignment?*
		Marie: *Yeah.*
		Camilo: *Really?*
		Marie: *And she's going to, like, scan it and email it to us so we have it for our in-class essay.*

[1]minute 6:22 through 8:34

Further review of Team B's conversation on Day 1 revealed that there were often two topics to which students might listen at any given time, one that was focused on the team's assigned task and another that was focused on things clearly not related to class. In light of the concurrent topics to which students might listen on Day 1, I reviewed the conversation that occurred on Day 2 to determine if this social aspect was a consistent

characteristic of this team's talk. As with the other two teams' Day 2 conversations, Team B was quite focused on the course content on this second day. In considering the transcript from Day 2, coherence was much more apparent, which facilitated the coding of listening indicators in terms of content-relevant comments. As the excerpt in Table 4.20 demonstrates, not only was Team B's conversation on Day 2 more focused on course concepts, but it could also be readily coded using the same verbal listening indicators used for the conversations in Teams A and C, supporting my conclusion that, although the conversations in each team were clearly different, verbal indicators of listening were commonly represented across discussions.

Table 4.20. *Day 2 Comments from Team B's Discussion*[1] *Coded for Verbal Indicators of Listening*

Transcript	**Type of Verbal Listening Indicator**
Marie: *Document 13 says they're not behind in their work.*	
Shelly: *So would we say, is that, like, does that go in this box or this box? Here. I feel like that would be a strategy.*	acknowledges
Camilo: *Yeah. It'd be a strategy for him.*	responds to question
Shelly: [speaks as writes] *'overworked, old, needed new blood'*	summarizes
Camilo: *Sort of. In short. Yeah.*	acknowledges
William: *So that's a strategy for Roosevelt?*	questions
Camilo: *Right. That strategy ended up backfiring because the Supreme Court was able to prove they were well, they could handle things the way they were and they were not behind in work and they - as far as the writs of - what were they called the writs of what?*	responds to question and elaborates
Marie: *certier-?*	responds to question
Shelly: *Yeah. The ones. Yeah – she [the teacher] just said it.*	acknowledges
Camilo: *He said as far as those go, it's up to the Supreme Court whether or not they're important.*	
Shelly: *It's like that one that was saying, like, 60% of them or so were not worthy.*	elaborates
Camilo: *Were denied. But the way Roosevelt put it was that they weren't going through all of them.*	elaborates
Shelly: *That they didn't have time.*	elaborates
Camilo: *They didn't have time to go through all of them. And then, they argued that it's not that we don't have time, it's that they're not important.*	summarizes
Shelly: *Yeah. Here, there's like a paragraph. [reading from document] "That plan has two chief purposes. By bringing into the Judicial system a steady and continuing stream of new and younger blood, I hope, first, to make the administration of all Federal justice, from the bottom to the top, speedier and, therefore less costly; secondly, to bring to the decision of social and economic problems younger men who have had personal experience and contact with modern facts and circumstances under which average men have to live and work. This plan will save our national Constitution from hardening of the judicial arteries...."*	elaborates with evidence
William: *Who wrote that?*	questions
Camilo: *That was Charles Hughes.*	responds to question
Shelly: *FDR*	responds to question
Camilo: *Oh, that was FDR?*	questions
William: *Roosevelt?*	questions
Shelly: *Yeah. That was one of his Fireside Chats. So, he did that one over the radio.*	responds to question

[1]includes talk from minute 13:52 to 15:46

Nonverbal Actions as Listening Indicators in Team B

In terms of nonverbal indicators of listening, students in Team B displayed many of the same actions that various members of Team A and Team C had made, including looking at the speaker and nodding one's head. However, it is noteworthy that unlike Team A, which had some members who would look down at their documents as they searched for evidence in response to another team member's comment (e.g., Felicia), and unlike Team C, which had team members who focused primarily on the documents in an attempt to comprehend them (e.g., Rachel), it appeared as though Team B's members sometimes used deliberate *lack* of eye contact as a way of tuning out social distractions on Day 1. For example, for much of the time that Marie, Camilo, and Delia engaged in the on-topic discussion aimed towards indentifying each of the authors as "for" or "against" FDR's proposed bill, they rarely looked over at Alan or Shelly, who were mostly engaged in an off-topic conversation. At one point, even Shelly appeared to be avoiding eye contact with Alan, as she stared intently at the documents on her laptop screen even as Alan was speaking to her. Thus, although none of the three students from Team B who were interviewed identified nonverbal actions as important indicators of listening, it appeared as though these actions were purposively employed by individuals to indicate they were trying to tune out certain aspects of the team's discussion.

There was also one additional nonverbal action that could be an indicator of listening that was not previously identified by any of the students during the one-on-one interviews, and that I had not recognized in my previous analyses of Teams A or C. Particularly on Day 1, with the social component seemingly driven by Alan, I noticed that

Shelly and Alan often smiled throughout their off-topic conversation and that Delia sometimes smiled when she looked towards them, following up with an appropriate verbal contribution. It is interesting that such an action went unnoticed in two days of discussion for two other groups. However, neither Team A nor Team C had such a socially-driven conversation as Team B had on either of these two activity days. That is not to say that individuals in Teams A and C never smiled at one another, but smiling did not appear to be used as an indicator of listening during their more content-focused discussions, nor did it noticeably appear in conjunction with the content-focused comments made by members of Team B. Therefore, although smiling may well be an indicator of listening in certain conversational contexts, it may not serve as such an indicator during a more learning-focused conversation.

The Relationship Between Listening and Learning for Members of Team B

Through a content analysis of the individuals' essays and the teams' talk I was able to demonstrate that students in Teams A and C seemed bounded by their discussions insofar as each person wrote only about those ideas that had been mentioned during his or her team conversation. Furthermore, a micro-analytic look at individuals' listening indicators, both verbal and nonverbal, seemed to align with the ideas an individual chose to include in his or her essay. In looking for phrases across essays for members of Team B, I noticed that several of the topics I had identified in Teams A and C (shown in Tables 4.11 and 4.12 respectively) were again present in Team B (e.g., FDR's assumption he had support); however, I also identified several new ideas referenced by at least one, and sometimes two, members of this team (e.g., FDR's "cocky" attitude).

In contrast to my analyses of the essays for Teams A and C, I found it difficult to group the ideas presented across multiple members in Team B. Although I was able to discern that different individuals were implying the same idea, the phrases they used were not so similar as to clearly link the ideas across essays as I had been able to do with the essays for Teams A and C. For example, in the two essay excerpts below, note the different ways that Shelly and Alan reference the idea of "power" in each of their essays:

> Shelly's essay: *He even had a henchman, Tommy Corcoran who would speak with Senators reminding them of this [riding his coattails into office] fact, which angered them even more. It wasn't that FDR was ever* ***power*** *hungry though….*
>
> Alan's essay: *When he went in to Congress and Senate with this cocky attitude…When he went so far as to say, "disloyal senators would not receive patronage favors in the future," this caused even more resentment. I don't know that the senate and congress opposed his bill as much as they opposed FDR's arrogance.* ***Power*** *is an easy thing to let get out of control. How far do you take it? How much can the government change itself? If you start where do you stop? And if you do start and don't stop America could lose its face of democracy.*

What is interesting here is that Shelly and Alan are both referring to the general notion of "power" and both are making reference to the same document (#2). Here, it is difficult, if not impossible, to recognize the shared reference if one is not familiar with the document itself:

> Tommy Corcoran was designated as a "royal messenger" to whip recalcitrants into line and when this failed, the White House let it be known that "disloyal Senators" would not receive any patronage favors in the future. (taken from George Creel's *Rebel at Large,* 1937)

Upon initial analysis, then, the single word "power" hints at a common topic across essays, but not to the same degree that comparable phrases did for the other two teams. Thus, I found it difficult to create a table for the topics included across essays for Team B as I had been able to do for the other two teams. Still, it is worth remembering that these

"topic" tables had not been identical for Teams A and C either. That is, members in Team A seemed to include more topics and sub-topics than had members in Team C. As Team A had engaged in a conversation that was far more robust than the one that occurred in Team C, I concluded that individuals in Team A had more ideas to consider incorporating into their essays than those in Team C.

With the distinctly different, more socially-distracted conversation that occurred within Team B, it is possible that the hidden coherence demonstrated earlier in Day 1's conversation left students with general ideas, but without the words to articulate fully those ideas on paper. Although Day 2's conversation was much more focused and coherent than their conversation on the previous day had been, there were times in the conversation when several ideas that later included in the essays were briefly mentioned and thrust aside in pursuit of the next idea, as students shifted from one idea to the next without losing a sense of coherence. For example, the following excerpt took less than three minutes to occur on the second day (bolded text represents ideas included in Team B's essays):

> Camilo: *And then another thing that might have played a big impact was, uh, when* ***Joe Robinson died.***
>
> Shelly: *Yeah.*
>
> Camilo: *Because he was put in charge of everything. And once he died*
>
> Shelly: *They were like put this through, and you'll be in the House.*
>
> Marie: *Yeah.* ***When he died, the bill also died****. That's like the main thing.*
>
> William: *So all of these are, like, factors leading up to why Roosevelt was re-elected?*
>
> Camilo: *No. These are leading up to why the bill failed.*

William: *O.K.*

Camilo: *The court-packing, why the court packing [failed]*

William: *Oh, the New - is it the New Deal?*

Camilo: *No. The Court-packing bill.*

Shelly: *The Court-Packing bill. In this bill he, Roosevelt wanted, basically the House kept like, rejecting a lot of the stuff he was trying to push through for his New Deal, like the AAA - the agriculture one - and then that new reforms thing or something - so they kept, like, rejecting that and he was getting frustrated and so he decided that they needed to, like, add more Justices to this system and force people to retire once they were over 70 or like, be able to appoint them anyway in order to, just like the paragraph I just read.* ***They needed people who were younger essentially, not overworked, was his reasoning.***

William: *So people, like, can know the experience or…?*

Shelly: *Yeah. So he has a bill and* ***he has to debate between wanting to do this as a bill or a constitutional amendment.*** *He goes with a bill. And he's trying to push this through and he thinks that it'll be pushed through easily because, uh, the*

Delia: *Congress,*

Shelly: *and the House were both democratic. And then* ***he's like super surprised when they don't agree.***

Delia: *He also had this, like,* ***mass landslide victory*** *which was sort of, like,*

Shelly [interrupts]: *Yeah. So he* ***saw himself as, like, the voice of the people****.*

Delia: *Yeah. He's like, "****Everybody loves me****."*

Shelly: ***The face of the Progressivism****.*

Delia: *I can do whatever I want.*

Camilo: *Yeah. Since he* ***won his election by a landslide he thought, "Oh. Anything I'll say they'll agree with."***

Shelly: *This is a good idea. This should definitely be done.*

Camilo: *Yeah. Like, one person wrote that they, that* ***FDR believed that he was Progressivism.***

Shelly: *Yeah. Where was that? That's a good quote to put in.*

Camilo: *Darn. I don't remember what document but I remember that very well. I was like, Oh, that sounds* ***- that's cocky. That's pretty cocky****." I think it was towards the end? Not towards the end-end but towards the m-*

Shelly: *Yeah. I'm going to look for that because I would like to put that down.*

Within this brief portion of the team's discussion, reference was made to six different topics identified in various team members' essays. It is noteworthy that, although Shelly did a great deal of the talking in this segment, not all of these essay topics were included in her essay whereas many were a part of *other* students' essays. That is, as this part of the transcript illustrates, an individual did not need to contribute verbally the idea to the team's discussion in order to have incorporated it into his or her own essay later. In fact, William, who made no comment in this segment directly related to the essay topics, included three of the topics referenced here in his own essay. That he was also contributing to the conversation in terms of clarifying questions at least suggests that he was listening to his fellow team members' explanations even if he was not ready to contribute his own interpretations of the documents to the team's discussion.

In reviewing the team's discussion from both days, then, I found some reference to every topic included in individuals' essays. Therefore, Team B supported the conclusion drawn from analysis of the other two teams' essay topics and discussion transcripts: students' written essays were bound to the ideas presented during the team discussion. In looking further at the videos and transcripts for Team B's discussions, I was able to discern a similar pattern linking individual listening indicators (verbal and

nonverbal) with the individual's learning outcome (essay). Marie, for example, one of the more quiet members of all three teams, could be seen looking at the speaker during moments in the discussion that were focused on the ideas that she chose to include in her essay. Although she did tend to be more silent than verbal, her verbal contributions during these moments often reflected acknowledgment, elaboration, supporting evidence, or a counterargument, further supporting a conclusion that she had been engaged (i.e., listening) to the conversation. She also seemed quite adept at tuning out the more social aspects of the discussion, as she rarely looked at the speaker(s) during these social comments and seemed quite intent on looking either at her documents or at those who were contributing content-relevant comments.

Summary

Students across all three focal teams identified similar listening indicators. Within this learning-focused context, where having evidence to support an argument was expected, students privileged verbal contributions that were appropriate to the unfolding conversation and discounted nonverbal actions that might traditionally be thought of as polite. Still, these nonverbal actions were often present during the discussions of all the teams. Furthermore, these nonverbal indicators seemed to facilitate verbal contributions, as members of Team A were seated in such a way as to enable them to interact readily with one another, whereas Team C's physical arrangement on Day 1 seemed to hamper further their conversation. Members in Team B seemed to utilize most strategically nonverbal cues to indicate either one was listening (e.g., smiling as encouragement of

continued social discourse) or that one was not listening (e.g., lack of eye contact as if "tuning out" the off-topic comments).

Furthermore, a relationship was found between the ideas students chose to include in their essays and those ideas that had been discussed during the team discussions. In using both verbal contributions and nonverbal actions to help identify moments of listening, I was able to expose listening as a critical component of the interactions that take place within a small group context as individuals engage in the co-construction of meaning.

Chapter 5

Discussion

The overarching purpose of this study was to understand better the nature of listening within a small group learning context. I identified indicators that individuals said they use to determine whether others have been listening to them as well as indicators that individuals said they use to indicate to others that they have been listening themselves. I then used these identified indications of listening to analyze what had occurred in a group setting and associated them with individuals' performance on an assigned task. I also focused on trying to discern how listening might help explain the differences between groups that function well and those that function less well.

I was motivated to pursue this line of inquiry into listening processes in a small group and their relationship to individual learning because of my belief that having opportunities to discuss concepts with others helps support individual understanding. Although I believe individuals learn by interacting with others, it is important to note that I do not claim that learning can *only* happen within a group context. Individuals can and do learn in other contexts (e.g., whole class lecture, online environments, reading information on their own, writing text). Furthermore, it is important to recognize what research has already uncovered regarding effectively supporting learning in small groups, including the kinds of tasks that are appropriate, how to assign students to groups, and what individuals say within small group settings. However, with so little research focused on how what one hears within a small group affects individual understanding, I deemed it an important focus for gaining insights into how group communication processes might

influence individual thinking processes. It was my hope that by analyzing small group discourse, we would gain a better understanding of how coherent conversations evolve so that educators could better foster productive discussions.

In this chapter, I discuss what my research findings have revealed in terms of the nature of listening in a small group focused on learning course content. First, I explain how individuals indicate listening within the group context and then discuss the relationship between listening in a group and individual understanding. Next, I reflect on these findings to explain some of the differences that can arise in groups' functioning. In making a choice to pursue this research within an authentic learning context, with all the affordances this setting provided, there were some limitations in terms of size, scope, data gathering methods, and measures used, which are explained in greater detail after my discussion of the findings. Finally, I present implications that my study has, first for future research in the area of small group processes and their effects on individual learning and second, for practice.

Discussion of Findings

Previous research has focused primarily on either the outcomes or the processes of small groups in an attempt to validate the use of small groups (outcome-focused) or explain the differences between small groups (process-focused). In bringing outcome and process together, previous research (e.g., Barron, 2003) has not used authentic contexts in terms of the task given or the group created. Gathering data in a course that incorporated small groups as an integral part of the course structure enabled me to study listening within an authentic learning environment. As listening can be particularly sensitive to the

relationships established among interlocuters, being able to study this phenomenon within a well-established group helped ensure that unfamiliarity and lack of trust was not a hindrance to the listening process. I organize this section around my research questions, originally presented in Chapter 1:

1. What is the nature of listening in small groups focused on learning?
2. What are the indicators of effective listening in a small group learning context?
3. How are indicators of listening associated with learning?
4. What differentiates groups that function well from groups that function less well in terms of listening?

Due to the overarching quality of the first question, I start with a discussion of question two, and take each of the remaining question in turn, before ending with my thoughts on the nature of listening in small groups.

Indicators of effective listening in a small group learning context. As indicated by individual interviews as well as an analysis of what individuals said and did during the small group discussion, listening indicators included verbal and nonverbal responses. Students consistently stated during the interview that being able to make a verbal contribution that appropriately built on what had been said indicated listening. Many students even felt such verbal contributions were more important than nonverbal actions, and identified various types of appropriate verbal responses such as summarizing, asking a question, elaborating, providing evidence, and acknowledging. Students' thoughts on nonverbal indications of listening, such as head-nodding and eye-contact, were mixed;

some students felt that in this context it was unnecessary, whereas others insisted on them. In coding the transcripts of the small group discussions, it became apparent that teams differed in the extent to which they offered these verbal indicators, as there were differing levels of verbal contributions to which one might respond. A micro-analytical look at the video that involved coding verbal comments for the overt actions of each individual revealed that many students displayed nonverbal indicators in conjunction with verbal ones. This finding demonstrates that although one might not perceive nonverbal actions to be a listening indicator within a small group learning context, such actions might be present nonetheless.

Nearly two decades ago, Rhodes (1993) argued that, "a competent, or effective listener…must be able to respond appropriately" (p. 224). That the students in my study would so consistently state that they knew their team members had been listening based on the appropriateness of the contributions strongly substantiates his theoretical notions. Rhodes also advocated the idea that verbal and nonverbal cues are continuously being sent and received as part of the listening process, and Imhof (2002) established that even children identify "good" listeners through their nonverbal actions and verbal responses. The idea that verbal and nonverbal cues were interpreted by these college students as indicators of being listened to and of listening to others, then, is not so new or enlightening. What this study is able to contribute to the field of listening research is confirmation that these indicators are *actually present* within a conversation among *multiple* people, and that they are part of a *learning-focused* discussion. Thus, several important distinctions make the results of this study worthy of further consideration.

First, it is important to note that Rhodes (1993) primarily talked about listening as a transactional communication process occurring between two people rather than an integral part of a dynamic learning process in which three or more people are involved. Such a focus on communication processes within a dyad has been the predominant focus from the onset of the socio-constructivist perspective of learning. Vygotsky (1978), the acknowledged father of socio-constructivism, did not delineate between dyadic interactions and those that include more people. Rather, Vygotskian views speak broadly in terms of how the individual is influenced by the larger social context: "…in order to understand the individual it is necessary to understand the social relations in which the individual exists" (Wertsch, 1991, p. 88). Furthermore, social influence on individual learning and development is often mediated through the cultural tools of that social context (e.g., language, writings, algebraic symbol systems) and therefore does not rely only upon direct interaction with others. It is not that socio-constructivists explain learning as occurring only through direct interactions with others but rather, they recognize that an individual's understandings are affected by the socially-constructed environment via socio-cultural tools such as language.

It may seem, then, that making a distinction between dyadic listening and small group listening is unwarranted, as it does not change the underlying premise that the individual mind is influenced by the social context. However, each individual mind brings unique interpretations and understandings to the group, creating a dynamic system in which the negotiation of meaning among multiple interlocuters has the potential to become exponentially more complex. Managing one's self in such a system requires that

listening be thought of as more than the relational process advocated by Rhodes (1993), but rather as an *interdependent* relational process. With the inevitability for each person to be listening to multiple speakers at any one point in time, the small group context sets up a possible site for different discourse moves to arise (e.g., turn taking) in order for effective listening to the unfolding conversation to occur. What became evident through my analyses, however, was that rather than adopt different discourse moves, the students in these groups validated the notion that effective listening is revealed through verbal responses and nonverbal actions as their conversation naturally evolved. The verbal contributions that were offered served not only as the public point of contact around which group member co-constructed meaning, but also as the building blocks for their coherent conversation.

Furthermore, when individuals are working together to make sense of something for which someone else is holding them accountable (e.g., completing a class assignment), then the purpose for listening shifts from simply trying to understand the speaker's intended message to trying to understand the speaker's intended message *and* trying to understand what a third party (e.g., the teacher) wants the group to accomplish. Thus, finding that these verbal and nonverbal indicators are viable aspects of listening within a group learning context further validates their importance for effective communication.

Listening in a group is related to individual learning. When asked during the interview how they felt small-group discussions influenced their learning, students stated

that listening to others helped clarify and deepen their understanding, as illustrated by the following interview and journal excerpts:

> Deborah [interview]: *...especially with the unit that was about the Progressivism. I didn't get it all when I read it. I mean, I understood what the article was saying on the surface, but in terms of how it related to everything else I didn't understand it all. So, when someone else's article started talking about it, I understood it much better and I feel like that helped a lot on the essays and everything.*

> Jackie [interview]: *I definitely understand my article a lot better and I try to say, "O.K., does their article agree with mine?"*

> Stephen [interview]: *I think it solidifies it, but it also makes it bigger, right? Because, like in this one, I did a reading about poverty, and Matthew did a reading about race and civil rights. There were some things that tied together, but you don't really think about it or see it until there's almost a direct comparison between what I read and what he read. And he's explaining what he read, and I'm thinking about what I read, and I can start to see how some of these things are larger than just one issue or topic.*

> Tatyana [journal]: *I take away a lot from class discussion, my opinions/previous journal entries don't change but they do get expanded on and the subject is better understood from multiple angles. I also notice that I focus more on specifics before class and on the big picture after.*

Some students reflected that hearing diverse opinions exposed their own thinking about a topic and sometimes changed their opinions on a given matter:

> Felicia [journal]: *The theme of my opinions changing after teamwork started after my first journal entry. My team changed my views on robbers and barrons [sic], how to distribute wealth, what the progressives wanted, how Zinn and Johnson wrote, how America was affected by the Cold War, and the type of president Nixon was. To me this theme demonstrates how a team can be very beneficial. My team helped me learn history as well as form my own opinions on events in history.*

> Kevin [interview]: *I think they all mostly had a general idea of that. I think it was maybe four of them were against it, and two of us were not and that's why I switched. They had a lot stronger points than I did, I thought. So it gave me an opportunity to see where they were coming from.*

Although all students said in their interviews that they felt team discussions positively influenced their learning, it was not until systematic analyses of their individually-written essays alongside a coded transcript of the team discussion that I was able to demonstrate the association between listening indicators and individual outcomes. From evidence of the kinds of understandings individuals represented in their essays, I was able to trace ideas back to the group discussion, and study the process by which these ideas were co-constructed by multiple team members. With these listening indicators to guide me through my analyses of the audio and video recordings, I gained some insight into the covert process of making meaning, as individuals were able to contribute appropriately, and thereby help to construct a cohesive conversation. Therefore, my study supports the socio-constructivist notion that learning can happen in a group, as demonstrated by the way that individual outcomes reflect the group's process.

My study explored a direct link between what occurs in the group and what the individual later produces without the group, an area previous research has only partly approached. Systematic exploration of this relationship between group experience and individual outcomes is absent from much of the research thus far. Even when researchers have tried to consider both the process and outcome of groups, rarely have they demonstrated the specific ways in which an individual work reflects the group's process. Barron (2003) attempted to show how individuals from more successful groups performed better on subsequent tasks than those who had been in less successful groups, but she neglected to consider exactly how the individual outcome might actually have reflected the group's work.

Though it is commonplace for measures of learning to be distilled down into a single score, incorporating such a practice into research methodology is, at best, a poor representation of the depth of knowledge and skills individuals might actually understand and be able to apply. When such a singular score is the basis for comparisons, ambiguity allows for assumptions to drive our conclusions. Barron's (2003) claim that "performance differences observed in triads extended to subsequent problem-solving sessions during which all students solved the same kinds of problems independently" was used for the basis of her conclusion that "the quality of interaction had implications for learning" (p. 307), and belies the complex nature of the task students were asked to do and the learning process itself. Although deriving a score allows for comparisons across multiple groups and provides quantifiable evidence that some researchers find more compelling (Barron, 2003), it can also obscure the evidence that supports alternative conclusions. It is one thing if learning is defined as simply performance on a task. However, when learning is considered a process rather than an outcome, it becomes necessary to consider more than a score. It is true that there is no way for me to know if students actually learned about the ideas represented in their essays by listening to their peers, or if they had many of these ideas prior to the team's discussion. However, that the content analysis of the essays and a content analysis of the teams' discussions were shown to be different across teams, and yet so well aligned for individuals in each team supports the claim that discussing ideas in small groups influences individual learning.

Listening contributes to the way the group functions. As I have already described, analysis of the interviews showed that individuals from different groups

agreed in terms of what indicated listening. By juxtaposing their essays with their discussion, I was able to demonstrate that the presence of these indicators in the team's discussion aligned with individuals' outcomes. In spite of these commonalities across groups, however, analyses of the data supplied by the audio and video recordings, in combination with my observational notes, showed that the teams functioned very differently from one another. Specifically, groups differed in terms of what the individuals were able to listen to during the discussion.

Listening processes are an integral part of co-constructing meaning. In order to contribute verbally to the evolving conversation, an individual must listen, understand, and construct a response that aligns with the meaning of what came before it. Consequently, if only insubstantial comments are offered, then little is needed to negotiate meaning. Contradictorily, if two topics are simultaneously in play, such as the social topic interwoven with the content topic in Team B, then strategic effort may be necessary for one to effectively navigate these dueling conversations in an attempt to construct meaning of either one. The effect that this difference had on the functioning of the group seems best explained through the lens of systems theory, which I will briefly explain next.

Grounded in mathematics and physics, systems theory acknowledges distinct characteristics of natural, living systems that traditional theories grounded in more linear ways of thinking cannot. In systems theory perspectives, several characteristics are often offered: (a) the interdependent nature of elements within a system, and (b) the sensitivity of a system to change in disproportional and seemingly chaotic ways. Of primary

importance to my discussion at this moment is the idea of *interdependence*, explained mathematically by Galatzer-Levy (2009) using differential equations. There are two types of differential equations: linear (with which most people are familiar) and nonlinear. Linear equations are tied to a basic assumption that input equals output, and thus, any change to the input will lead to a proportional change in the output (e.g., $Y = aX + b$). Nonlinear equations are different in that output becomes input in the next iteration, such that all computations of an equation are linked together. For example, a simple nonlinear equation would be $z_{n+1} = z^2_n + c$ indicating that the output (z_{n+1}) is computed by squaring the previous value of that variable (z_n) and adding a constant. The output (z_{n+1}) then becomes input in subsequent iterations of the equation. Thus, systems theory provides a mathematical model for representing how the current state of a system depends on previous states (Remer, 2005).

This notion of nonlinearity is of particular use in describing the ways in which various listening strategies contributed to the way the groups functioned. That is, if output (what is said) becomes the input (what is heard) in the next iteration (conversational contribution), then groups in which significant comments are made will reflect that significance in subsequent comments, continuously reverberating throughout the unfolding conversation, propagating further substantial verbal contributions by the group members. Likewise, groups in which insubstantial comments are offered will reverberate these lesser ideas through each of the following iterations. And those groups in which off-topic comments are made will persist in social banter as long as someone in

the group indicates he or she was listening, sustaining the social diversion with each verbal acknowledgement.

It is this nonlinear aspect of systems theory, then, that ultimately explains how listening contributes to the cohesiveness of the conversation. As previous research has already shown that a characteristic of effective groups is how cohesive is their conversation, the role of listening should not be overlooked when considering group processes, as it undoubtedly influences the way in which a group functions.

The nature of listening in small groups focused on learning. Through this study into the nature of listening within a small group learning context, I was able to trace the process by which ideas are co-constructed by a group and then reflected by individuals in subsequent essays to convey their personal understandings. With a systematic approach and an inductive line of inquiry, it became clear that listening processes are an integral part of co-constructing meaning in the small group setting. In order to contribute verbally to the evolving conversation, an individual must listen, understand, and construct a response that aligns with the meaning of what came before it. Using the talk that occurred as means for gaining access to this meaning-making process illuminated listening as a fundamental component of small group interactions; something that previous research has neglected.

Overall, it would seem that listening in a small collaborative group focused on learning resembles the listening that occurs within other contexts (e.g., dyads that are engaged in more casual conversation). That is, verbal contributions that build upon one another are important not only for what they indicate in terms of the degree to which one

listened, but also for what their construction means for helping to develop the individual's understanding. Nonverbal indicators were also present, and supported listening processes, though they were not as highly valued by these individuals. Perhaps this lack of importance on the nonverbal actions of listeners was due to the context created by the learning environment. Where looking at the speaker might be an expectation in dyadic exchanges that are more social in nature, within this learning context such an expectation was suspended in lieu of looking for evidence in the documents.

Limitations

Although I was able to discern a relationship between indicators of listening within a small group context and individual outcomes, my study was not without limitations.

The relatively small sample size and narrow scope allowed me to look closely at the interactions within a group and consider how individual thinking is influenced by those interactions. Even though using a single class already presents limitations in terms of representing the nature of listening within small groups across different classrooms and disciplines, I chose to narrow my focus even further, studying just some of the teams so that I could examine these teams through multiple lenses, developing a rich understanding of the dynamics in each group and the roles of each individual within those groups. Relying in part on the level of consent that I was able to obtain from each of the team members, I must recognize the possibility that these three teams may not be representative of the other teams in the class. However, in order to mitigate the potential

for systematic bias, I attempted to select teams that would provide interesting contrasts with one another. Of course, one would still be reluctant to draw hard conclusions based on a single sample of undergraduate history students in a class considered even more unique for the instructor's use of Team-Based Learning. I would argue, however, that the opportunity to study real students engaged in authentic learning tasks is a crucial component of small group research, and that any such study conducted in "real time" contributes to our understanding in this field in a way that would be unfeasible through large, longitudinal studies.

In addition to focusing on just some of the groups within a single class, I chose to center my analyses on one team activity from an entire semester of team interactions. Narrowing my analyses to just two of the 20 days during which students worked in small groups may not have been planned from the onset of my data collection process; however, it was an intentional choice that I made based on the questions guiding this study. Specifically, the team activity selected was one of only two team tasks for which there was an individual task subsequent to group work, and one of these occurred during the very first unit of instruction when I had not yet identified my focal groups. Without such an individually produced outcome, I would not have been able to pursue my question of how indicators of listening are associated with learning. Had I been able to identify focal groups prior to the first unit's essay, or had individual tasks that aligned with the team tasks not been so rare, I would have looked for further evidence of the listening/learning relationship across other activities. In studying the nature of listening

within an actual classroom, with no intention of changing the context for the purposes of my study, I utilized the best data available for answering my research questions.

Still, I must at least acknowledge that the nature of this task was not representative of all the team tasks students were given in this class. For the task selected, each student was to read all of the primary source documents prior to the team discussion. Other tasks throughout the semester had students divide the readings among group members and then share out the main ideas from each of their respective readings. It is important to consider that listening might change when someone else is talking about something one has already read versus something that one has never before seen. One student noted such conversational differences during the interview: *"…there are times when we all read the same thing and ... we're, like, 'O.K. We're done,' because you just don't have that much to bring to the table … it seemed like everybody was finding the same important details on the document"* (Felicia, Team A). Although it did not appear as though Team A was "done" discussing the common documents for this particular activity, as their conversation seemed productive and extensive, it would be worth further study to consider tasks that use different structures and that require different degrees of individual preparation for the team conversation.

For all the advantages to studying group processes within an actual classroom, this setting presented one more limitation; that is, the inherent constraints of gathering data. Although it is easy to argue the merits of investigating the nature of listening within groups that are already an integral part of a course, video cameras and audio recorders are not a natural part of a classroom's design. In order to be as unobtrusive as possible, I set

the cameras along the periphery of the classroom and left them in a stationary position for the duration of the class period, lest I make students feel self-conscious about their participation in the group discussions. Consequently, students were sometimes partially off camera or their position in the group partially obscured them from view. To offset this limitation, I had an assistant help with observational field notes of the focal teams for the duration of the activity, taking note specifically of those students, actions, and distractions that were out of the camera's view. Additionally, the audio quality was sometimes too poor to discern exactly what an individual was saying due to the ambient noise or the crosstalk that sometimes occurred. I was surprised how well I was able to decode some of these more unclear moments with the help of the multiple data sources I had collected, catching key vocabulary or documents being mentioned across teams or in essays and journal entries. Still, there were a few places where the audio was simply unintelligible, and thus, the final transcripts are not quite complete.

A further limitation to my study was the way in which I measured individual learning. With no pre-assessment of students' knowledge prior to the unit of study, I do not know what information students already knew prior to the team activity and what students learned through the team's discussion. I would argue that, although students had likely been exposed to FDR and his New Deal policies prior to taking this particular history class, it was unlikely that students were aware of the details surrounding FDR's failed attempt to "pack" the Supreme Court. As one student stated in her interview,

> *I didn't know really what I thought of FDR. I just kind of knew, beforehand, that some people thought he was a great President. My dad is very conservative, so he was, like, "He was the worst President ever." And so, I didn't know what I thought about it. And I read it, and I kind of started to agree that I didn't really*

> *like him too much. And, then, I didn't really realize that was my feeling. And then [one of my team members] was, like, "I still think he's a good President." And then I found myself kind of arguing back. So, I think that made me realize what I actually thought about it, 'cause I didn't really notice it before.*

Furthermore, the measure of learning to which I had access and that the teacher had designed to assess individual understanding after the team discussion may not have been fine-tuned enough to reveal fully the differences between students in terms of their understanding. That individual essays reflected the team's discussion was consistent across teams, but the discussion that occurred within each team was distinctly different. That the scores each individual student earned on his or her essay was not drastically different might reflect commonalities in writing skills across students rather than true differences in understanding. Nevertheless, this essay was the way in which the *instructor* chose to measure individual understanding in this class, and thus it represents a valid learning outcome for this context. I would also contend that in conducting a content analysis of the essays and the discourse, I was able to discern the nuances in individuals' understandings and link that understanding with the team discussion. Had I relied only on the numerical score the instructor assigned each essay, akin to the total score Barron (2003) used in her study linking small group processes and individual outcomes, my claim that listening is an important component of learning from small group interactions would be tenuous, at best.

Finally, the nature of the interviews was somewhat restrictive, as students were relying solely on memory to recall certain aspects of their team dialogue. Had I scheduled these interviews immediately following the focal activity, I may have been able to capture better students' recollections of what they remembered hearing, thinking, and

learning from these particular discussions. As I had yet to determine that this one activity would serve as my focal point for analysis at the time of the interviews, students often spoke in more general terms regarding their perceptions of listening and learning in a team, which might actually be more helpful in generalizing the nature of listening to other contexts. Still, had students been primed to recall a specific team discussion through a transcript or video clip, they might have provided more specific details regarding whether they had been listening and/or what they might have been thinking at a more precise moment in time. Such details would have been helpful to identifying more accurately the indicators or listening and their relationship to learning.

Theoretical Implications and Future Research

> Utterances are not indifferent to one another, and are not self-sufficient; they are aware of and mutually reflect one another – *Bakhtin* (Wertsch, 1991, p. 94)

As a philosopher of social language, Bakhtin focused on the *utterance*, which he identified as the manifestation of language through speech: "speech can exist in reality only in the form of concrete utterances of individual speaking people" (Bakhtin, 1986, p. 71). He also maintained that the utterance should be considered within the context in which it was made, meaning that it should not be disassociated from the person who spoke it or from those who heard it. Accordingly, the utterance can never be completely unique, as each word carries with it meanings established by previous utterances.

In this study, utterances served as the basis for my analyses of the team's discourse, and allowed me a way of revealing listening processes through the conversational coherence that emerged as group members engaged in the co-construction of understanding. It may have been possible to focus solely on the content of each

utterance, ignoring the specifics of the social context, in order to establish a sense of coherence. However, had I not considered the source of each utterance and the way in which it influenced other interlocuters, I would not have been able to tease apart the dynamic interactions of group process and individual learning. Each team's discussion served as a dialogic activity in which the degree to which each verbal contribution echoed the previous utterances revealed the underlying listening processes. Through my analyses, it became clear that listening contributes to the cohesiveness of a conversation. Researchers interested in small group functioning would do well to consider how listening processes contribute to successful group discussion and individual understanding.

That is not to say that continued consideration of the talk as part of small group interactions and the influence that *speaking* has on individual understanding should be abandoned in lieu of listening research. Clarifying one's own thoughts can occur as one tries to articulate ideas that have yet to be fully developed. My initial argument, one to which I now return, is that what one says can also reveal internal thinking processes, processes that have been influenced by what someone *else* previously said. Thus, discourse analysis can also be considered for what it can tell us about what was attended to, heard, comprehended, and ultimately influential in the thinking processes of someone else. This is the nature of the interactive complexity of small group processes that has been the holy grail of research on small group processes.

Also, it was not my intention to create a coding system that future researchers might take and apply to small group conversations in other contexts. Thus, I would not

encourage researchers to apply the codes I used in this study to their own transcripts; nor would I consider them as the foundational step in creating a measure for assessing individual listening skills within a small group setting. It would not be the most fruitful course of action for future researchers to try and code each verbal contribution made in terms of what type of listening indicator it represents. For this initial look into the nature of listening in a small group learning context, it was necessary to identify verbal contributions in terms of what they indicated about listening in order to reveal the way in which listening processes support the co-construction of a cohesive conversation. Now that this relationship has been exposed, the field of small group research would be better served through further consideration of how listening is affected by the interactions that occur within the group and how the individual's listening processes might be affected by those interactions. Instead of looking at the nature of listening for one activity across different groups, one might try to gain further insight into the interdependent aspect of the listening process by looking at the nature of listening for one group across different activities. It is interesting to consider, for example, how Team C's conversation might have been different had all six team members been present, or how Team A's discussion might have differed had everyone read different documents prior to class. Studying the nature of listening for a group across multiple conversations would provide an opportunity for different interactions between team members to emerge, potentially leading to some new insights into the dynamics of a group and effective (or ineffective) ways in which groups function.

Implications for Practice

As a former elementary teacher, I was often reminded during my research of a poster that was prominently displayed in many classrooms throughout the school where I taught. This poster showed a picture of a boy at a traditional student desk, looking straight ahead, his hands folded on top of the desk and his feet placed squarely underneath. Across the top of the poster, in bold black lettering were the words "Rules for Good Listening," with arrows pointing to various places on the boy's body with the following labels: *EYES are watching, EARS are listening, LIPS are closed, HANDS are still,* and *FEET* are quiet. I suppose the poster had its charm, and provided young children with a model for what listeners might *look* like, but it failed to recognize the complexity of listening processes and does little to provide students with an understanding of how they might listen in a dynamic, interdependent system that includes multiple speakers and an evolving conversation. If these are the "rules" we teach our students as they begin the academic journey, how well are we preparing them to participate in co-constructing knowledge with others? Listening is an integral part of the interactions that take place in small groups. It is not passive, nor is it simply receptive. Our students would be far better prepared if they were taught ways in which *speaking* supported *listening*, as opposed to simply being told that a rule for good listening is "LIPS are closed."

As my study focused on college students, I would not begin to suggest what, exactly, elementary teachers should do regarding listening instruction. I hesitate even to provide recommendations for college students in general, as the expectations of another instructor, the nature of the discipline, the ways in which the groups are structured, and

the tasks they are asked to do will influence group interactions. However, in light of what I have discovered about the relationship between listening in a small group and learning, I would offer the following suggestions to students who enroll in this instructor's class in the future:

1. Come prepared to class. Students who had read the documents prior to the team task were better able to listen to what others said. They heard these verbal contributions, comprehended them, and connected them with their own interpretation in a coherent way that contributed to developing understanding. Those who did not come prepared to class either sacrificed their own ability to listen fully, comprehend, and learn in an effort to contribute to the team (e.g., Jackie) or they wasted the opportunity to co-construct meaning with their team members as they had to spend time grappling to achieve a rudimentary understanding of the author's text (e.g., Catherine, Rachel). There will not always be a "Day 2" for you to revisit the ideas with your group members. Coming prepared allows you to contribute not only to your group, but to get the most out of what your group members have to say.
2. It's not about being ready for "your turn" to talk. The team that had the most robust, cohesive discussion did not systematically go around the group, making sure each person had a chance to speak. Yet, the number of turns was fairly distributed among team members (with the exception of Matthew, who mostly slept that day.) In addition to the fact that these team members seemed prepared to discuss the ideas presented in the documents, they were quite

adept at responding to one another in such a way as to indicate that they had heard, processed, and comprehended what had been said. They were deliberate in what they had to say, indicating to one another that they were listening with verbal contributions that were appropriately linked to what had already been said. Planning what you will say when it comes to be "your turn" may help you feel better about pulling your weight and contributing to the team, but it will not ensure that you "engage in comprehension of the discussion" (Do & Schallert, 2004, p. 623). That is, taking turns does not necessarily require you to *listen* and process the conversation, but making the most of the discussion does. Approaching the group conversation with the goal of developing deeper understanding means listening deeply when your team members talk.

3. You're going to have to do more than just show up. Just as being ready to say something when it's your turn will not necessarily facilitate listening (and learning) from the group, simply being present for the group's discussion does not mean you will automatically understand more than if you had stayed home from class. Alan and Matthew may both have been physically present for Day 1's discussion, but if the activity had not spilled over into a second day, these two would have gained very little in terms of a deeper understanding of the ideas. Matthew, who slept through most of Day 1, and Alan, who consistently tried to engage others in a social conversation, may still have been able to complete the essay with a satisfactory response. However, they would have

had to rely on their own preparation and initial understanding of the documents rather than the ideas proffered by their fellow team members. This is not to say that one must contribute verbally to the conversation in an appropriate manner in order to benefit from the group's talk. Marie contributed very little to her team's discussion, yet, she engaged with the ideas as indicated by her nonverbal actions and the few verbal contributions that she did make. Thus, showing up is helpful if you choose to engage in the discussion appropriately.

Much is already known regarding the ways to structure small groups and the types of tasks that best engage group members and facilitate productive group work. Team-based learning (Michaelsen & Sweet, 2008) as an instructional framework incorporates many of these components already, and that the instructor was implementing this framework in the way that it was intended created a context in which student interactions should have been productive and fairly equitable. That several students stated in their interviews that they thought they learned from the groups would seem to validate the instructor's efforts in implementing a team-based learning approach.

However, even with all that team-based learning includes in terms of structuring the course to encourage and support student learning in groups, it offers little in terms of supporting the discussion that occurs within the team context. Simply providing a well-structured task around which students must engage, and creating a class structure that incorporates individual accountability and positive interdependence, will not ensure that the discussion that occurs within the group will automatically be productive.

Based on the differences noted between teams in this study, as well as previous studies on small group discussions (e.g., Barron, 2003; Hogan et al, 1999), all group discourse is not created equal, even when it centers around a common task within the same learning environment. It would seem that groups' interpretations of the task might differ. For some, the task was viewed as something to facilitate their collaborative efforts to process the information and make it meaningful. For others, the task was perceived as something to complete and turn in for credit. Those who perceived the task as an opportunity to grapple with ideas seemed to approach the task with a psychological readiness to listen to one another. Readiness for such interaction was manifested into ways that facilitated listening, even down to the physical arrangement of the chairs. Those who perceived the task as a perfunctory exercise that needed to be completed, they seemed to listen more for "answers" in service of completing the task rather than for ideas that would provide a deeper level of understanding. I heard the instructor on many occasions explicitly state to the students the advantages of talking with a team about the "big ideas" of history rather than listening to her lecture about them. It would still seem, however, that efforts to help students understand better the reason for group interactions, and the purpose for group tasks, might encourage students to approach a group with a mindset for listening to one another in the service of deepening their understanding.

In further service to supporting the processes that occur within the group, I return to the ideas of systems theory, and the need for a dynamic system, such as a small group, to be *nonlinear* in nature. Such nonlinearity creates a feedback loop, which means that even small changes in the input (what is heard) become exponentially expressed in the

output (what is said). Such sensitivity, first demonstrated by mathematician Edward Lorenz as he worked to develop a model for predicting the weather, have come to be known as the *butterfly effect* (Kincanon & Powel, 1995). In discourse research, this idea has been demonstrated in the fact that a single person can introduce a discourse move for presenting an idea or argument in a group and it will quickly become appropriated by another, and another, and eventually spread throughout the rest of the group (Anderson et al., 2001). It may be, then, that when a group is found to be limiting their talk, focusing on the surface of the task rather than deepening their understanding of the underlying ideas, moving the group towards a more robust conversation may be only a verbal contribution away. Introducing one substantive comment to the conversation that is heard and then reflected back through a subsequent verbal contribution can move the system towards a productive, meaning-making dialogue.

Finally, and perhaps the biggest challenge, is to find ways to assess better the group processes, and their effects on individual understanding. That the students in each of these groups engaged in substantially different conversations, but that their outcomes were shown to be fairly similar, indicates that perhaps the assessments being used are not yet fine-tuned enough to reveal the differing degrees to which these students seemed to be grappling with the ideas in an effort to make sense of them. Traditional measures of learning, and listening for that matter, are often problematic in that they offer only a small peek into a vast world of knowledge and understanding. As groups become an increasingly common sight on the educational landscape, we would be wise to develop

better tools for measuring both the processes that are going on within the group as well as outcomes they produce.

Appendix A

Communication Adaptability Scale (CAS)

Directions: The following are statements about communication behaviors. Answer each item as it relates to your general style of communication (the type of communicator you are most often). Please indicate the degree to which each statement applies to you according to the following scale:

1 never true of me			4 sometimes true of me			7 always true of me

Social Composure

* I feel nervous in social situations.
* In most situations I feel tense and constrained.
* When talking, my posture seems awkward and tense.
* My voice sounds nervous when I talk to others.
I am relaxed when talking to others.

Social Confirmation

I try to make the other person feel good.
I try to make the other person feel important.
I try to be warm when communicating with another.
While I'm talking I think about how the other person feels.
I am verbally and nonverbally supportive of other people.

Social Experience

I like to be active in different social groups.
I enjoy meeting new people.
I find it easy to get along with new people.
I enjoy socializing with various groups of people.
* I do not "mix" well at social functions.

Appropriate Disclosure

I am aware of how intimate my disclosures are.
I am aware of how intimate the disclosures of others are.
I disclose at the same level that others disclose to me.
I know how appropriate my self-disclosures are.
When I self-disclose I know what I am revealing.

Articulation

* When speaking I have problems with grammar.
* At times I don't use appropriate verb tense.
* I sometimes use one word when I mean to use another.
* I sometimes use words incorrectly.
* I have difficulty pronouncing some words.

Wit

When I am anxious, I often make jokes.
I often make jokes when in tense situations.
When I embarrass myself I often make a joke about it.
When someone makes a negative comment about me I respond with a witty comeback
People think I am witty.

*Reverse scaled items

Appendix B

Heedful Interrelating in Collaborative Educational Settings (HICES-6)

Directions: Use the scale below each item to answer the questions. If you think the statement is very true of you, mark 7; if a statement is not at all true of you, mark 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you and mark it.

1 never true of me	2	3	4	5	6	7 always true of me

1. I helped to clarify the idea of another group member so that we would all understand her/his idea.
2. I rephrased what a group member had said so that I could check my understanding of his/her idea.
3. I asked a group member to elaborate on his/her idea so that I could make sure I understood what he/she was saying.
4. I carefully explained a concept to a group member who did not understand the concept.
5. I carefully contributed relevant examples in my group.
6. I tried to think about how I could connect my ideas to ideas offered by other group members.

Appendix C

Interview Questions
These questions served as a general framework to facilitate the individual interviews.

- *Would you describe for me what you do when you participate in these team-based activities?*
- *How might your participation in this team vary from one project day to the next?*
- *When you think about the other members in your team, what might be different conversational roles that each member plays?*
- *How do you think the conversation varies depending on who is present/absent?*
- *In what ways might you show others that you are listening to them?*
- *How can you tell when your team members are listening to you?*
- *What might be some indicators that, although someone has looked like they are listening, they weren't really paying attention to the conversation?*
- *Has there been anything that someone has said this semester that particularly stood out to you – either for what was said, how it was said, or who said it? (e.g., something insightful, contradictory, forceful, funny)*
- *When you think about your level of engagement in these tasks, what might your silence indicate?*
- *What comments really grabbed your attention in this conversation? Why do you think you were drawn in by certain comments but not by others?*
- *Do you notice certain team members that elicit interesting responses during discussion?*
- *How do you think the team discussions have affected your own learning this semester?*

When you think about your last team conversation…

- *What do you notice about your participation in that conversation? (e.g. Do you tend to respond to a particular individual? Do you remain silent most of the time? What types of physical responses do you have)*
- *What do you think influenced your contribution to the conversation?*

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